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I. On the application of Phrenology in the choice of Parliamentary Representatives.*

"What the Atomic Theory has effected for the science of Chemistry, such is Phrenology calculated to effect for all those sciences whose laws depend upon the constitution of the human mind; and these comprising Education, Legislation, and Ethics, are beyond comparison the most important of all kinds of knowledge to the happiness and welfare of the human race."

NOTWITHSTANDING the number of years phrenology has been before the public, the importance of its objects, and the simple, easy, and *conclusive* tests of its truth, which are within the reach of all who are not too indolent and apathetic to employ them; such are the prejudices of mankind, and so small is the portion of the human race who ever emancipate themselves from their leading strings, that I am fully aware the title of this essay will be quite sufficient to excite a smile on the countenances of many of the literati of the day.

Truth, however, is in its essence eternal; and it is some consolation to the philosopher to know, that the merits of a proposition depend essentially on the nature and relations of things in themselves, and not at all on the wideness of its divergence from preconceived notions, or the sneering reception it may meet with from those superficial intellects, who are indebted for all their ideas to time and place. To be enslaved by the prejudices of their era is the infirmity of feeble minds, as surely as to overleap these barriers, is the attribute of great ones.

* This essay was written in 1839, on the occasion of a prize of £20 being offered by the Editor of the *Phrenological Journal* for the best essay on the subject. The essay was not successful; and never having been published, we gladly avail ourselves of the permission of the author to insert it in our pages.—*Zoist*.

To those who are disposed to dispute the utility of the proposed application of phrenology I shall merely observe, that if it is desirable to select for the station of parliamentary representative, a man who combines certain talents with certain moral endowments, (which I hold to be undeniable), and phrenology affords the means of making such a selection, (and this is capable of demonstration), *the question is set at rest.*

Let it also be borne in mind that the same arguments which show that phrenology is capable of useful application, in the choice of members of the British Parliament, are equally conclusive in establishing its claims to utility, in the selection of legislative representatives universally; and when it is considered that a representative form of government is the only one under which any nation having any pretensions to civilization, can ever be contented to exist, a faint glimpse of the importance of phrenology in one of the many modes of its application to the affairs of life is obtained. This view of its importance is however immeasurably increased by the reflection, that it is equally capable of being usefully applied in the selection of the occupants of subordinate offices, as in the selection of individuals to the important posts of legislators; and when we consider how numerous are the cases in which mankind are necessitated to confide to individuals the discharge of certain duties involving their own interest and comfort, and that this necessity extends through all the ramifications of social life, we shall perceive that the capacity of phrenology for useful application in this particular, is co-extensive with the existence of society.

'The utility of the employment of phrenology in the choice of Parliamentary Representatives' is then, properly speaking, a branch of the more extensive question, which treats 'of the utility of the application of phrenology to the selection of the occupants of all stations, or offices, having certain duties attached to them.'

When changes in existing institutions are proposed, it naturally becomes a subject for enquiry whether the defects in the present system are such as to justify its being interfered with; for if though not absolutely perfect, it approaches so near perfection as to accomplish in a very tolerable degree the objects of its institution, and gives at the same time satisfaction to the great majority of the people, the prudent and the circumspect may well be excused for resisting the introduction of changes. If however we consider for a moment what is the object of all government,—'that it is the happiness of the people,'—and then enquire how far this

object has been hitherto attained, I think we shall speedily come to the conclusion, that the science of government is the least entitled of all sciences, to plead present perfection, as an excuse for neglecting to listen to suggestions for its improvement.

Coeval with the formation of society and the institution of laws for its regulation, is the selection of individuals to execute and apply them. An investiture with power is almost synonymous with an investiture with the capability of 'doing evil;' and the moral and intellectual qualifications of the individuals elected must ever be the only safeguard society can possess that evil will not be done; for how limited soever the trust reposed, and how carefully soever the abuse of this trust may be endeavoured to be restricted, yet a discretionary power within certain limits, and for a certain period, must unavoidably be confided, and within these limits, and during this period, may be abused. How frequently and how fatally for the happiness of man it has been abused, it is almost superfluous to mention. History is little else than a chronicle of such acts,—a record informing us how often the sword confided to authority for the safeguard of society, and to be the terror of evil doers, has been converted into a weapon of tyranny, and its blade reddened in enslaving those who were entitled to its protection:—how often the power of levying taxes for the benefit of the common weal, has been made a plea for the most monstrous extortion,—for seizing the mite of the widow, and wringing the hardly-earned pittance from the hands of the labourer, to glut the insatiable avarice, or pamper the pride of some sordid and selfish ruler, or for the still more execrable purpose of bribing the steel of the mercenary, to enable a tyrant to enslave a people, who first confided power to his hands for the preservation of their liberties,—how often in fact delegated authority has been abused, and the happiness of the many, sacrificed to the selfishness of the few. And with such examples of the misery arising from committing power to the unprincipled before our eyes, are we to treat lightly a science which renders it easy,

"à des signes certains
Reconnaître le cœur des perfides humains."

A science which will enable a nation to select for an important post, an individual with the absolute certainty, that he would rather lay his own head on the block than betray the trust confided to his charge.

Upon taking a review of the past history of man, and seeing how universally hitherto his career has been marked by disorder and misery, many perhaps will be inclined to believe such a state of things unavoidable, and to consider it

folly to believe in man's possessing a capacity for comparative perfectibility, and presumption to attempt to bring about such a state. Those however who imagine that human affairs are constantly to move round in a circle, commit the common error of analogical reasoners, that of arguing from precedents, without sufficiently considering whether the parallel is so exact in every particular as to warrant the deduction of similar inferences.

In the present instance the discovery of printing and phrenology are either singly sufficient to destroy the parallel between past and present times, but taken together, the change they are calculated to effect in the condition of man is so mighty as to baffle conception, and render futile all anticipations founded on states of things so totally dissimilar. Instead then of adopting the opinion so paralyzing to exertion, so inimical to improvement, that the confusion which has hitherto pervaded human affairs, and the misery which has so abundantly fallen to the lot of the species are evils inseparable from the nature of humanity and the state of society, man ought rather to regard them as originating in his own conduct, and exert himself first to discover, and next to remove, their cause; and as soon as men shall have become fully convinced that ignorance and misery stand in the relation of cause and effect, to each other, and that knowledge is the only remedy for the evils which environ them, they will have made a most important step towards effecting these objects.

Foremost amongst the sources of misery, which it is to be hoped increased knowledge will remove, are those political commotions, in which institutions, long grown distasteful to the bulk of a people, are swept away with a violence which shakes the whole fabric of society. Phrenology, by specifying the fundamental powers of the human species, gives us the data for constructing a form of government as immutable in its general principles, and as capable of modification in its details, as the constitution of man, on which it is founded. To ensure stability, there ought, in all governments, to be a constant recurrence to first principles; or rather first principles should never be lost sight of. Such governments carry within themselves ample means for self-modification, to suit the modified modes of thinking and feeling, which time will inevitably introduce amongst their subjects. To attempt to bind down posterity to the same regulations which men think fit to impose upon themselves, is an act of folly and presumption; and laws which have become offensive to the genius of a people, can only be persisted in at the *risk* of a convulsion, and with the *certainty* of that gradual extinction of manufac-

tures and commerce, which is the inseparable attendant on a state of protracted instability.

The endeavour then to uphold institutions in opposition to the wishes of a people, can only originate in folly or wickedness, and must ever end in disappointment and defeat. The moment the bulk of a nation are *agreed* as to the changes they demand in its institutions, and sufficiently organized to be able to *rely upon acting in concert*, from that moment nothing can resist their will. The single word COMBINATION, is the death-warrant of all tyranny; and tyrants well aware of this fact, have always endeavoured to prevent their subjects, or rather slaves, from associating themselves together.

A nation can only be coerced, by being prevented from combining. No nation is ever tyrannized over by a domestic ruler, and but seldom by a foreign power, in which the sorrowing patriots and enraged sufferers, who wear their chains in silence, but would gladly risk their lives to snap them, had they the least chance of success, are not tenfold more numerous than the supporters of their oppressor; and hence it is only by preventing the people from organizing, and being able to rely upon each other's co-operation, that tyranny can ever exist; and it is evident that the more intelligent mankind become, and the more the means of intercommunication are increased, the less easily will they be able to be subjected to the will of others.

Happily then for the happiness of man, fortunately for the lovers of liberty, a high state of civilization, with its attendants the printing press and the rail-road, will produce an atmosphere in which oppression must languish and decay, and freedom only can flourish. And O! let none seek to retard the growth of the glorious tree of liberty, under the mistaken supposition that there is something in its fruit inimical to the repose of society, and that personal freedom and social order are incompatible. Nothing is more common than such an opinion, but nothing is more opposed to the truth. To suppose that a nation requires to be coerced to preserve order is a fatal error. Legislators have only to allow the mass of the people to assist in framing the laws, to ensure their assistance in enforcing them. They have but to show them that they have an interest in preserving order, to ensure its preservation. Restrictions which affect equally all the members of a community, and are known to be wisely adapted to the benefit of the whole, are never murmured against, but on the contrary always enlist the feelings of the people in their support. Class legislation, exclusive privileges and monopolies, must on the contrary, from the very

nature of man, excite jealousy and dissatisfaction, and by creating conflicting interests, give origin at their imposition to a struggle which will only cease with their overthrow, and which by exciting internal discord will paralyze the resources of a state, and render it powerless abroad by being divided at home.

The stability of institutions then, is not only *compatible* with the liberty of those who live under them, but actually becomes encreased in proportion as the basis of the latter becomes widened, and diminished in the same ratio as it is curtailed. In fact the contrary opinion is only one of those gross errors, the prevalence of which shows how prone men are to be led away by superficial analogies, and how few scrutinize the evidence on which the opinions they adopt are founded. Because the encreased power which every fresh acquisition of liberty gives to a nation still partially enslaved, from being immediately very properly employed by it as a lever for overturning remaining abuses, frequently has the effect of producing temporary commotion rather than tranquillity; it has been most sagaciously concluded, that the same commotions would continue, when from all exclusive laws being abolished, there would be no longer any abuses to struggle against. So far, however, are mankind from being partial to discord and political convulsions, that they often submit to great abuses rather than have recourse to those means for their overthrow; and they can be much more justly charged, with a blind partiality for whatever is antiquated, and a culpable apathy with regard to their rights and privileges, than with any predilection for change or undue jealousy of their liberties. Seldom indeed till want and misery are at their doors, do the generality of the people concern themselves at all about the management of their political affairs; and it is quite certain that great abuses must exist in the institutions of any state before the mass of its inhabitants can be roused to exert themselves for their removal. Repose, then, and not commotion is the natural object of man's desire, and if blest with the means of obtaining the necessaries of life, the majority of the individuals composing a nation will each seek to pass a life of peace and tranquillity under his own vine and under his own fig-tree; and the same motives of convenience and desire of security which prompted men to enter into the social compact will always be sufficient to ensure its preservation. The timid then may rest assured, that the great bulk of a nation must always be desirous of social order if the condition of the mass of the people is such as it should be, and that the

number of restless spirits in a community will always be comparatively few, and utterly unable to put the body in motion, except when that body is suffering for want of the necessaries of life; and as it may be laid down as an axiom, that unless the fruits of the earth are destroyed by some very unusual vicissitudes of the seasons, no individual can want for sustenance, without individual or collective mismanagement; when industrious individuals find themselves confronted with starvation, it is not only natural but proper that they should direct their attention to that part of the frame-work of the social system, the erroneous construction of which is the cause of their suffering.

We have now established the competency of phrenology to be applied to the end proposed,—and pointed out the very extended bearing of the question, which its proposed application involves. We have shewn that the existing imperfections in legislation, are such as to authorize the propriety of the adoption of suggestions for its improvement;—that in all societies the necessity of entrusting to individuals a certain amount of power must always exist, and that the only security the body can ever possess against its abuse, is in the qualifications of the individual confided in; and consequently that the possession of a criterion for correctly discovering these qualifications, is of the highest importance, (a point we have still further illustrated by recurring to the many evils, mankind have suffered, by committing power to the unprincipled.) We have shewn that the evils which have marked the past history of mankind, are not inseparable from the nature of man, and the state of society, but the result of faulty institutions, founded in ignorance, and consequently that there is legitimate ground for inferring, that the condition of the human race will be happier in future, than in times past, and in confirmation of this view, we have demonstrated, that the progress of civilization, and knowledge, has a direct tendency to remove those prolific sources of misery,—political convulsions, by rendering it impossible to enforce institutions, at variance with the wishes of the majority of a people, by discovering to men (no longer kept in a state of irritation by coercion), that their true interest must ever be associated with peace, and order, and by unfolding those immutable principles [founded on the nature of man], on which legislation should be based; and if we have devoted considerable space to the examination of these general questions, it has been from a conviction, that a demonstration of principles is necessary, before an attentive consideration can be secured for the details to be employed in carrying them into operation,

and the belief, that it would be labour lost to discuss the merits of a remedy, for evils, the existence of which is doubted, the possibility of removing them denied, or the propriety of doing so disputed; and because we are convinced that it would be useless to expect a cool, and dispassionate examination of a question by men, till they are disabused of their fears and prejudices relating to it. It now remains for us to consider society, as it immediately exists at the present day, and among ourselves as a people, and from what has been already stated, it is evident that the existence of grave political evils must be considered as establishing the necessity for amending the institutions, which have given birth to them; and by tracing the cause of their origin, in the faulty constitution of our legislative body, we shall be able to judge how far phrenology (a science which unfolds the nature, and specifies the fundamental faculties of the mind of man, and teaches how to discover the capacities, and dispositions of individuals, by ineffacable indications) is capable of being usefully employed as a remedy.

No government is so demoralizing to a nation, none so complete a tyranny, as a corrupt representative one, because people suffer themselves to be deluded by the semblance of liberty, whilst they are deprived of the substance. That the British nation are at the present moment suffering from having been long ruled by such a government, none competent to give an opinion can have any doubt; and saving and except the valuable privilege of being allowed to discuss their grievances, it would be difficult to point out in what the much-boasted liberty of Englishmen consists. Certainly in no other nation is so large a proportion of the produce of their labour taken from the producing classes for the support of the government; in none are the poorer classes more demoralized, in none are they consigned to such unremitting toil, and in none do they fare more scantily;—a state of things which has produced, as might be expected, great and general discontent.

This result however is to be rejoiced at rather than otherwise, for were it not a universal law, that the endurance of misery, and the subjection to injustice, had a direct tendency to engender this feeling, these evils might be perpetuated for ever, instead of which it is wisely ordained, that, from the very nature of things, they shall carry within themselves the seeds of their own decay, and after the lapse of time be unfailingly destroyed by their own effects. The knowledge of the ultimate extinction of evils, is however but poor consolation to those who are suffering from their existence and

disturbed by the struggles for their overthrow. It does not ameliorate the lot of the over-worked and under-paid artisan, whose health is irremediably impaired from having been subjected from infancy to the close air of a factory, from 12 to 14 hours out of the 24, to know that in future ages of the world the hours of toil will be abridged, and man will be enabled to devote a proper portion of his time to the cultivation of his intellect, his sentiments, and his physical health; neither is it of any avail to the wretch pining for want of sustenance, to be told that future generations will be blest with plenty and abundance.

In short, it is painful to think on the mass of misery and suffering, at present endured by a large portion of the community, and still more painful to reflect, that it owes its existence and finds an obstacle to its removal in the obstinacy, ignorance, and selfishness of our legislators.

We are in the habit of considering ourselves, as a nation, in a highly civilized state, and relatively to antecedent periods, and as far as physical science alone is concerned, this belief may not be altogether unfounded; but whatever strides we may have made in the physical sciences, with regard to moral science, and more particularly in the department of legislation, we are in a state of the grossest ignorance and barbarism; and what is worse than the mere total absence of knowledge, its place is supplied by a mass of prejudice, which presents a serious obstacle to improvement, and the removal of which must necessarily precede the recognition and application of any sound and practically useful principles. That such is the state of Society at present, is not certainly generally recognized, but this forms no argument against the correctness of the picture; for a certain amount of knowledge, with reference to a subject, is requisite to enable men to discover the extent of their ignorance respecting it; hence the most ignorant are ever the least sensible of their condition, and this is the present state of the mass of the people with regard to the science of government.

Numberless instances of defects and abuses might be named, the existence of which will be looked back upon with wonder by succeeding generations, and each of which is singly sufficient to establish the barbarism of the present. The only fixed principle of our legislators appears to be, to sacrifice the interests of the many to that of the few, and to uphold the vested rights (monopolies) of classes, founded in usurpation, at the expense of the rights of the community, founded in nature. Our civil jurisprudence, on which we so much pride ourselves, appears to be rather a scheme for en-

riching a class, at the expense of the nation, than for rendering substantial justice to any. And the justly-boasted integrity of our judges, and our much-lauded freedom of appeal, are of little avail, whilst the laws are framed either with such exquisite folly, or such consummate wickedness, that it is notoriously more prudent for a man to relinquish his right than to sue for it. Our criminal laws are, if possible, in a more disgraceful state than the civil, whilst the mode in which they are carried into execution, surpasses in faultiness the laws themselves: reason tells us that the existence of ignorance in a community invariably diminishes its security, inasmuch as an ignorant populace will be ever a mass of inflammable matter, capable of being fired at will by the artifices of the designing, and we are in possession of the clearest evidence to prove, that a judicious education has a direct tendency to diminish crime, and yet we neglect to make provision for the education of the rising generation on the plea of economy!!! And whilst we pay many millions annually in inflicting punishment for crime, refuse to expend a mere fraction of the sum, in educating them to prevent it. A species of economy on a par, in point of wisdom, with that of a merchant, who, to save expense, should send his ship to sea without caulking or coppering her, and then to prevent her from sinking send a dozen extra hands on board to work the pumps.

Another point which our legislators may justly be blamed for disregarding, is that of Medical Police, and as if the total neglect of this important subject was not a sufficient display of their folly, light, ventilation, and cleanliness, have been made the objects of taxation. And we must not close our catalogue of evils, without adverting to the corn laws; which, opposed as they are to the clearest and simplest maxims of legislation and humanity, are alone sufficient to stamp the era of their existence as barbarous, the people who submitted to them as unenlightened, and the legislature who framed them as miserably short-sighted and intolerably selfish. Two centuries ago all Europe denounced the Dutch for burning a cargo of spices to keep up the price. The English, at the present day, (O! indelible disgrace, and acme of wickedness!) discharge the contents of their granaries into the ocean, when thousands around can with difficulty procure sustenance. The Dutch sought to gratify their covetousness at the expense of the luxury of foreign nations. The English sacrifice to the demon of avarice, at the expense of the lives of their fellow countrymen.

From considering the state of our institutions, let us turn

to the consideration of the condition of our legislators; and great as are the evils, and monstrous as are the abuses, which afflict the former, our surprise at their existence will cease as we come to examine the character of the latter. Instead of a display of those high moral qualities which might be expected in the representatives of a great nation, their conduct is characterised by a disregard of principle, disgraceful alike to the age and nation. Speeches are unblushingly delivered, which our special pleadings for the support of monopolies, and abuses, and individuals do not scruple to undertake the advocacy of schemes of private jobbing and corruption in the hopes of sharing in the plunder. National prosperity is invariably sacrificed whenever it clashes with personal interest; an artificial and discreditable distinction is drawn between public and private morality; and the sacred name of religion made a stalking-horse to effect the purposes of party. Instead of a display of those intellectual endowments, so requisite for the adequate discharge of the momentous duties of their station, they have no fixed principles of legislation to guide them, but steer according to passion, prejudice, and caprice; pay a greater deference to musty precedents, than to the clearest dictates of reason, resist all suggestions for improvement, and are chiefly remarkable for the absence of all those qualities, they ought to possess; and their debates instead of being conducted in a manner befitting the importance of the subjects of their deliberations, exhibit a total want of any enlarged, comprehensive, and systematic mode of treating things, and consist of a mere miserable skirmishing among the outworks of a question, whilst the really important points of the position are left untouched.

As our surprise at the innumerable evils in our institutions ceases, when we come to contemplate the depraved character of the legislators by which they are framed, so our astonishment at the character of the latter diminishes, when we come to examine the mode in which they are elected, and the criterion by which their competency is measured. To enable a man to exercise a calling or profession in a proper manner, some little previous study and training is generally considered necessary; but the science of government seems to be regarded as an exception to this rule; so that judging from our practice, it might be supposed, that by how much the importance of the duties attached to a station become increased, by so much does the necessity for any previous study for competently discharging them become lessened. Legislators appear to consider themselves born ready made, and being enabled, owing to another and a false standard of

rank being admitted, in place of that instituted by nature, to ensure for themselves a certain station in society, no necessity exists for them to make themselves worthy of it; and the result of this state of things to our laws and institutions, is similar to that which would take place in our arts and manufactures, did no necessity exist for our artists and artizans to make themselves proficient in their various occupations to pursue them with success. These latter display skill and ingenuity in the exercise of their respective trades and avocations, because they bring to their task a knowledge of the effect they wish to produce, and a competent acquaintance with the tools and materials with which it is executed. Did we see a number of workmen engaged in erecting a building without knowing the purposes for which it was designed, or the nature of the materials used in its construction, we should certainly anticipate a failure: and in like manner, when we see a number of legislators engaged in framing laws, three-fourths of whom never asked themselves the question, What is the ultimate object of legislation?—much less ever proposed to themselves any means for carrying this object into effect—we can only anticipate mischief from the result of their deliberations. In short, if the propriety of regulations is to be judged by their effects, then most absurdly the existing criterion of legislative competency, consisting as it does solely of a property qualification, must be condemned; and it appears almost superfluous to enter into arguments to shew the impropriety of a system, which creates constituencies who barter their franchise for gold; which promotes individuals to a seat in parliament, whose only recommendation is their capacity for giving utterance with volubility to promises they have no intention of fulfilling, and of making protestations of feelings which never throbbed in their bosoms; under which, the enormous evils existing at the present time have sprung up; and between which, and the qualifications which ought to be possessed by the elective body, no sort of relation exists. Were however any further considerations required to shew the evils of a property qualification, they might be found in its tendency to establish an artificial and injurious standard of rank, which by granting to wealth what should be accorded to merit alone; lessens the practice of virtue, and retards that desire for physical health, strength and beauty, and for energy of character, intellectual acuteness and moral excellence, so conducive to the true happiness of mankind. Happiness is the aim of man; to attain this object, the efforts of each individual composing a commonwealth will ever be directed; and as long as wealth and hap-

piness continue to be regarded as synonymous, or inseparably connected, many and serious are the evils which must result to society from so grievous an error.

From tracing the evils of our institutions to the defective character of our legislative body, and the defective character of the latter to the defective criterion employed in its selection, we naturally arrive at the question, *What are the best means to be employed to procure the election of the most competent individuals to the office of legislators?*

Now the selection of the most efficient individuals to the office of legislators, is to be effected in two ways; by the requiring of certain qualities in the elected, and in the body of electors, and preparatory to considering *the best method of ensuring the possession by the two parties of those qualifications which will be most conducive to the attainment of the desired object*, it is evidently necessary to decide first, *in what these qualifications consist*, and secondly, *on what conditions they depend*. Without then going into details, it may be stated in general terms, without fear of contradiction, that it is requisite for a legislator,

1st. To be endowed with a certain portion of intellect and acquired knowledge.

2ndly. To have the capacity for making practical application of this intellect and acquired knowledge to business.

3rdly. To have the requisite integrity and sense of duty to ensure the right application of the intellect, knowledge, and energy of character possessed.

That it is requisite for one who has a voice in the choice of legislators,

1st. To prefer the interests of the community to all bribes and selfish considerations.

2ndly. To be able to discover whether a candidate for the office of representative has the requisite *intellect, knowledge, energy, and integrity* for the station; and to be able to do this, presupposes both a competent knowledge of the duties his representative will have to discharge, and the capability of discovering by external indications the dispositions and talents of individuals; (it should however be observed, that the establishment by law of a comparatively efficient test for the fitness of representatives, would go far to do away with the necessity for the possession by the constituent of this latter capability.)

Having decided the qualities requisite for a representative to be a certain portion of intellect, cultivated to a certain extent and in a specific direction, a certain amount of energy of character, and a certain measure of integrity; and that

nearly the same qualifications, though perhaps in rather a less prominent degree, are essential to the elector; let us proceed to enquire, *on what conditions these mental qualities depend*; premising, that if it should prove that the conditions on which they depend are discoverable conditions, then it necessarily follows that the indication of the presence of these conditions is the desideratum of which we are in quest.

Now we fearlessly assert, and the truth of the assertion is easily capable of conclusive demonstration, 1st, that the condition on which the mental qualities in question, and all other mental qualities, are dependent, is a certain development of brain; and 2ndly, that there are discoverable indications by which the existence of this requisite development may be ascertained: and these positions being established, it follows as a corollary, that the indications of cerebral development, or in other words, *the size and shape of the head, are the proper measure of fitness for the offices of constituent and representative, as well as for all other offices requiring certain mental endowments for the adequate discharge of their duties.*

The preceding assertion may probably appear to some to border on the extravagant; but I would suggest to these individuals, whether it may not be possible that the absurdity which strikes their eye is not inherent in the subject itself, but a quality imparted to it by the deceptive and party-coloured glasses of ignorance and prejudice through which they regard it. Nature knows neither absurdities nor exceptions in her laws, and all conclusions legitimately deduced from them, are susceptible of practical application; and the ignorance of a people, rendering impracticable the adoption of a proposition for their advantage, can take nothing from its abstract merits.

From the consideration of the requisite qualifications for the electors and the elected, and the mode in which the presence of these qualities is indicated, constituting the most efficient test of fitness for the discharge of the duties of the two offices, we come to the consideration of the best method of practically applying this test; a question which presents some difficulties, and in answering which, many conditions have to be considered. Practical phrenology itself is yet comparatively in a state of infancy—a circumstance which at first sight seems to augur ill for the success of our enquiry; but upon a narrower examination, I think we shall find the difficulty presented by the present imperfect state of this science much less than might be supposed; for the point on which practical phrenology is least advanced—the mode of accurately appreciating the development of individual organs

when modified in appearance by peculiarities in that of the adjacent ones—is a point not necessary to be had recourse to; whilst the simpler branch of the subject—the method of ascertaining those general features of development on which it would be most advisable for a standard to be framed—is comparatively well understood and easily put in practice.

It is evidently desirable that the test adopted should be so simple and defined in its character, as to leave nothing to the variable judgment of individual examiners; and to attain this object, it will be necessary to make measurement from undebatable points the standard, and to be content with obtaining the general character without descending to specific qualities. Indeed, I should propose to restrict the test to the estimation of the general force of character and the amount of morality, as I conceive that by omitting any special regulations for estimating the intellect, the simplicity of the measurements required would be much encreased, without any counterbalancing disadvantages; for independently of a certain general relation, which would in a great majority of cases subsist between the intellect and force of character as a whole, other methods may be employed for ascertaining not only that the intellect of those who aspire to the office of representatives has the requisite acuteness, but also (and this should be considered indispensable) that it has been sufficiently directed towards the science of political economy, to have acquired a competent knowledge of the duties they will have to perform. In fact, a criterion for morality is in reality the all-important point, as being the only one on which men have the power of greatly deceiving each other; and it is with a view to measure this quality as accurately as is compatible with simplicity and practical convenience, that a test should principally be framed.

The test I should propose, would be in the first place to require the head to possess a certain circumference; and in the second place, to require that the *sum* of the two measurements, from the root of the nose to the occipital spine (over the head), and from the orifice of one ear to that of the opposite ear (over the head), *subtracted* twice the depth of the orifice of the ear below a right line from the top of the eyebrow to the occipital spine, should bear a certain proportion to the measurement first obtained (that of the circumference of the head).

This system has the merit of possessing great simplicity and facility of application, only four measurements being required to be made, and these all from points concerning the situation of which no debate can arise. I will not enter

into the consideration of the precise length of measurement most advisable to be required for the circumference, nor the proportion which it would be desirable should subsist between this measurement and the succeeding ones, because these points are open to much debate; and it would be advisable before determining them, to possess a considerable mass of information as to the general measurement of the head among the inhabitants of the empire. Probably a circumference of 21 inches would be about a desirable standard for an elector, and 22 for a representative. As a guide to the measurement and proportion to be fixed on, I would suggest that the standard should be so framed, as to include half the adult male population amongst the electors, and render one fourth of the electors eligible to the office of representative.

Although the desirability of having a test extremely simple and easy of practical application may render it advisable to restrict the legal criterion to the appreciation of those prominent features of development—the relative size of the different cerebral organs—it by no means follows, that a consideration of the minuter shades of development may not be most advantageously had recourse to, for the assistance of private judgment. On the contrary, it would constitute a most valuable adjunct to the established test: and it ought to be required, that casts from the shaved heads of all candidates for a seat in parliament should be open to public inspection for a certain period prior to each election.

I will take this opportunity of observing, that it must not be supposed that the institution of a test of fitness for the exercise of the office of elector at all trenches upon those common rights of men maintained by the advocates of universal suffrage. An equality of political rights is clearly the only rational foundation on which any association or compact between individuals for mutual advantage can ever originate, and the only one on which it ought to continue to subsist; but at the same time it is not less evident, that all regulations approved of by the majority, and which are equally applied to all, must be held to be binding on the whole social body; and therefore supposing the regulation in question to have received this sanction, the consequent exclusion from the franchise of a considerable portion of the community, would be no more an infringement on their rights, than their exclusion from participating in any other public deliberative act performed by a body selected for the purpose.

Many will no doubt be ready with criticisms on the proposed phrenological test; but I would suggest to these individuals, that before they advance their objections, it would

be well for them to prepare themselves with the details of some other measure of qualification, and provide themselves with arguments to shew that their criterion is better adapted to effect the end required than the phrenological. In the meantime, I am under no apprehension that the phrenological test will lose anything in public estimation by having its claims discussed; but think, on the contrary, that the more it is compared with any *property* or *knowledge* qualification that could be devised, (and neither of them are capable of being framed so as to give the slightest indication of the moral qualities,) the more its superiority to either will become apparent. That many will always remain opposed to its introduction there can be no doubt, for it is in the nature of things that a criterion for discovering innate qualities should be regarded with jealousy by those who feel conscious of having much to conceal; and the intellectually feeble and the morally depraved can never be expected to lend their assistance toward unmasking their own features.

I cannot omit this opportunity of observing, that among the benefits to be expected from the introduction of cerebral development as a criterion of competency, not the least would be those which would accrue from having the value of the nobility of nature publicly recognized and forced upon the attention of the people. Nothing is more certain than that *the happiness and power of a nation are almost totally dependent upon the cerebral conformation of the individuals composing it*;* and it were well if more attention were paid to those causes (such as luxury, deficient food, excess of toil often at an immature age and in an impure atmosphere, &c.) which it is to be feared are silently at work in this country, deteriorating the development of the human frame as a whole in large masses of the people, and necessarily impairing alike the vigour of the vegetative, muscular, and nervous systems, and producing weak minds in feeble bodies; for be it remembered, that the ignorance of our legislature of those laws which regulate the decay of empires, will not exempt us from their operation.

Before concluding this essay, I will take the liberty of recording my conviction, that the reception phrenology has met with, will constitute a severe satire upon the age. That a science, having for its *objects* the determination of the mental constitution of man, and by consequence the development

* It must be recollected that the character of laws and institutions is principally, if not entirely, the result of the prevailing national qualities, and has a constant tendency to assimilate itself to the modifications these undergo.

of the principles on which all human institutions should be framed; one moreover so easy of verification, and so abounding in evidence of its truth, should remain for forty years before the world, and then at the end of this period, that the main body of the people, who are accustomed to rest their belief in all sciences on the authority of others, should be taught by those who assume the right of instructing them, to regard it as a chimera,—is indeed a phenomenon which will justly form a subject of wonder to future generations, and of reproach to the present.*

T. S. PRIDEAUX.

June, 1839.

II. *Phrenology as it affects Free-will. With a Note by Dr. Elliotson.*

PHRENOLOGISTS assert that each lobe or portion of the brain possesses an *innate* bias towards certain outward things, and that the peculiar *tendency* which these lobes exhibit in different individuals, is the *base* of varied character. If this assertion be true, then, what is called *self-government* can be in reality nothing more than these *organs acting upon and governing each other*; and if *each* of these faculties possess a *different* essence *distinct from, and inherent in each*, it follows, that *varied inclinations* must result and the *tenor* of these will of course be according to the nature of the essence that is willing; for the *same* function of the brain cannot *incline* and *decline* (as no one essence can of itself act against, or contrary to its nature) neither can it change or modify itself by its own power.

Phrenologists tell us that we ought to *control* our faculties. If by this, is meant that the organs of our brain are to control *each other*, the injunction is futile, because they are by *their very nature* NECESSITATED to do so,—the *most* powerful essences *will* govern the weaker. But if this is *not* what phrenologists intend to inculcate, the advice appears to *me* of an extremely *unphilosophical* and *unnatural* kind, for it is to assert that a portion of the brain is possessed of a peculiar nature,

* It must be remembered that this was written nearly seven years ago. Phrenology since this period has made rapid strides towards being regarded as an accepted science. A phrenological chair has lately been instituted in one of our universities. The subject has been popularized by the allusions of writers of fiction and others, and an expression of disbelief in the science would not be considered a mark of ignorance by most persons having any pretension to keep pace with the knowledge of the day.—T. S. P.

and yet can by its own essence act *against* it when it is not even possessed of the *ingredients* (if I may so speak) to do so.

People say "I can act against my inclination." This is not the case; our *passions* may will one mode of action, and our *reason* another; but if our *judgment* is *stronger* than our *affections*, the *former* will conquer; therefore we do not go against the *whole* of our inclinations, but *against some* of them: the *strongest governs*, and that is the inclination.

Phrenologists say "you have a certain organ too *powerfully*, and another too *weakly* developed, you must *strengthen* the weak ones, and keep down, or only *moderately* excite the the *strong organs*." To this I simply ask how the *strong* can *make itself weak*, and *vice versa*.

A celebrated phrenologist once told a lady that her organ of *comparison* was too small, that she would not judge *correctly* of anything. He immediately added, "you must be careful to come to *accurate* conclusions."!! If the organ of comparison was so small as to be *incapable* of judging accurately, how could it *give itself* the power to judge rightly?

Phrenologists say "you must *exercise* your weak developments" but we cannot exercise them without *inclination* to do so; and to will this, either an *outward circumstance* must be *more powerful* than the organ or organs it addresses (and so *governs*), or, the *internal will control the outward*.

If a *lover* of mine desires me to exercise some particular mental organ; that outward circumstance may be *more powerful* than my *original* inclination, but if an *indifferent* person entreated me, perhaps, and *most likely* the *inward* circumstance of my dislike would *rule* the outward action. But as long as the circumstances (both external and internal) remain *equally balanced*, we *must* remain without sufficient stimulus to execute the proposed action.

The true nature and control appears to me to be the inward and outward circumstances *acting upon each other*, (*i. e.* internal organization and external vibrations upon it) these acting and re-acting. And according to the *kind* of outward circumstance moving a particular organ or organs, and its or their sympathy with or otherwise, *so* will that external thing govern the internal, or the *native* rule the *outward* circumstance; in either case, the *strongest* must act.

There is an important question embodied in the doctrine of *libertarian* phrenology, which I think has not *occurred* to the professors of that theory. If we *all* have (as phrenologists assert), the requisite organs for perfection, and that we *can* exercise them for good; *why* do we *not* do so? These theorists say that each organ of the brain is *intended*

for good. "*Combateness*," for instance, is to produce an energetic spirit to battle for truth. "*Destructiveness*," to destroy evil, &c. &c., and that to fight and to kill are the abuses of these organs, but if we have free will (in the usual acceptation of the term) *what makes us abuse* these natures? "Our evil inclinations? How can "*good tendencies*" produce evil inclinations? or *why do'nt we*, (if we can, be our organization what it may) *incline for good*? When we are daily *ruing the consequences* of our evil deeds! From these reflections it appears to me that a *logical and consistent* phrenologist, must either believe in the doctrine of necessity, or give up phrenology altogether.

EMILINE.

P.S. The authoress of this Essay has written in manuscript a *complete analysis* of the doctrine of necessity: those persons who wish for further elucidation on the subject may subscribe for the publishing of that Essay.

. Every thought, feeling, and will, is merely cerebral action. When we will, this cerebral action results of *necessity* from something which is sufficient to excite it. Every thing in nature has a cause; and every thing or effect results of *necessity* from the cause, in the circumstances. *We cannot will without a cause*, and this cause produces the result, and makes us to will, of *necessity*. When we control an inclination of our brain, some stronger motive excited in the brain of *necessity*, by some causes, makes us of *necessity* to will to control it—to resist it, and the stronger wish succeeds.* Our inclinations depend in health both upon the

* The following dialogue puts the matter in a clear point of view.

A. There's a battery firing in our ears; are you at liberty to hear it or not hear it?

B. Certainly I *cannot help* hearing it.

A. Do you wish the cannon to carry away your head, and the heads of your wife and daughter who are walking with you?

B. What a question! I *cannot wish* such a thing while I am in my senses: it is *impossible for me*.

A. Well: you hear this cannon of *necessity*; and you are unwilling of *necessity* that you and your family should be shot while you are walking?

B. That is clear.

A. Therefore you have walked thirty steps aside to be out of the way of the cannon; you had the power to accompany me these few steps.

B. That also is clear.

A. And if you had been paralytic, you *could not* have avoided exposure to the battery. You *would not have had the power* of being where you are; you would of *necessity* have heard and received a cannon ball, and of *necessity* been killed?

excitability and strength of the respective portions of the *brain*, native and from external training, and upon the influence

B. Nothing can be more certain.

A. In what then does your liberty consist, but the power which you have exercised of doing what your will required of *absolute necessity*?

B. You embarrass me. Liberty then is only the power of doing what I wish?

A. Consider; and see if liberty can be understood in any other sense.

B. In that case my dog has the same degree of liberty that I have; for he necessarily has a wish to run when he sees a hare, and the power to run unless he is crippled. I am therefore not above my dog; and you reduce me to the condition of the brutes.

A. Such are the sophisms of the wretched sophists who educated you. You are quite hurt at possessing liberty like your dog. Do you not eat, do you not sleep, do you not, &c. like him? Do you desire to smell otherwise than with your nose? Why do you wish to possess liberty in a manner different from your dog?

B. But I have a *soul* which reasons a good deal, and my dog scarcely reasons at all. He has almost only simple ideas, and I have a thousand metaphysical ideas.

A. Well, then, you are a thousand times more free than he; that is to say, you have a thousand times more power to think than he; but you do not possess liberty differently from him.

B. What! I am not at liberty to will what I choose?

A. What do you mean by that?

B. I mean what all the world means. Do not people every day say, wills are free?

A. A proverb is not a reason: explain yourself better.

B. I mean that I am free to will as I choose.

A. With your leave, that is not sense. Do you not perceive that it is ridiculous to say, I choose to will,—I will to will? You *will necessarily*, in consequence of the ideas which are presented to you. Do you wish to marry or not?

B. I told you I wished neither the one thing nor the other.

A. That is answering like the man who said, "Some believe Cardinal Mazarin to be dead, others alive, but I believe neither the one thing nor the other."

B. Well, then, I wish to be married.

A. That is an answer. Why do you wish to be married?

B. Because I am in love with a young girl, handsome, amiable, well educated, pretty rich, who sings well, whose parents are very respectable people, and I flatter myself I am loved by her and am very well received by her family.

A. That is a reason. You perceive, therefore, that you cannot wish without a reason. I tell you that you are at liberty to marry, that is to say, you have the power to sign the contract, to go through the ceremony, and to sleep with your wife.

B. What! I cannot wish without a reason? Why what becomes of the proverb, "Let will be the reason—sit pro ratione voluntas,"—my will is my reason; I will, because I will.

A. That is absurd, my dear friend; there would then be an effect without a cause.

B. What! When I play at even or not, have I a reason for choosing even rather than odd?

A. Yes, undoubtedly.

B. What is this reason, I beg?

A. It is that the idea of even has presented itself to your thought rather than the opposite idea. It would be droll if there were cases in which you willed on account of there being a reason for willing, and cases in which you willed without a cause. When you wish to marry, you see the reason.

which they experience at the time from external causes of excitement; and in disease upon all the causes of disease that can act upon the brain. A bad man and a good man are equally products of necessity. The good man we ought to love, not for merit of his own, but as a beautiful inevitable

clearly: you do not see the reason when you wish or do not wish to play at even; and yet there must be a reason?

B. But, once more, am I not free?

A. Your will is not free, but your actions are. You are free to act when you have the power of acting.

B. But all the books which I have read upon the liberty of indifference—

A. What do you mean by the liberty of indifference?

B. I mean the liberty to spit to the right or the left, to sleep upon my right side or my left, to walk four turns or five.

A. That would be a very pretty liberty! God would have bestowed a beautiful gift upon you! That would be a fine thing to boast of! Of what use to you would be a power which could exercise itself on such ridiculous occasions only? But in truth it would be ridiculous to fancy the will of wishing to spit on the right or on the left. Not only is this will of wishing absurd, but the fact is that many little circumstances determine those acts which you call indifferent. You are not more free in these acts than in the others. But, once more, you are free at all times and in all places, as you do what you wish to do.

B. I suspect you are right. I'll think more of it.

This dialogue Voltaire inserted in the article *LIBERTY* of his *Dictionnaire Philosophique*, and considered the most concise exposition of the matter that had appeared in France. He thought that Collins, "a celebrated London magistrate," was the only philosopher who had gone to the bottom of the question. (*A Philosophical Enquiry concerning Human Liberty*, by Anthony Collins, London, 1717.) But Collins owes his views to Hobbes. (*A Treatise of Liberty and Necessitie, wherein all Controversie concerning Predestination, Election, Free-Will, Grace, Mercy, Reprobation, &c.*, is fully decided and cleared, by Thomas Hobbs. London, 1654.)

In his article on *free-will*, Voltaire remarks, Liberty being only the power of acting, what is this power? It is the effect of the constitution and present condition of our organs. When is it that a young man can master the violence of his passion? When a stronger idea determines the play of his powers in an opposite direction. "'What! Have other animals, then, the same Liberty, the same power?' Why not? they possess senses, memory, sentiment, perceptions, as well as ourselves; they act of their own accord, as we do; they must possess, like us, the power of acting in virtue of their perceptions, in virtue of the play of their organs.

"People exclaim, 'if that is the case, every thing is a mere machine, every thing in the universe is subjected to eternal laws.' Well; would you have every thing placed at the mercy of a million of blind caprices? Either every thing results from the necessity of the nature of things or from the eternal order of an absolute master; and in either case we are but the wheels of the machine of the world.

"It is vain jesting or common place to say that, without the pretended freedom of the will, punishments and rewards are useless. Reason, and you will come to a perfectly opposite conclusion. If, at the execution of a brigand, his accomplice, who witnesses the execution, has the liberty of not being dismayed by the punishment,—if his will determines itself, he will leave the scaffold to go and assassinate on the highway: if his organs, struck with terror, cause him an insurmountable terror, he will not steal again. The punishment of his companion is useful to him, and gives security to society as far only as his liberty is not free.

"Liberty, then, is and can be nothing more than the ability to do what we will. This is all that philosophy teaches us."

production of the formative powers, or of these and external circumstances together,—as a gem of fine water: the bad man we should detest, not for demerit of his own, but as a sorry, inevitable product of the formative powers or of these and external circumstances together,—as an inferior article, and, so far from blaming him, we should so pity him as to wish to surround him with favourable circumstances which *of necessity* may produce the best possible results from his organization. The object of rational punishment is to supply more motives to good than those which have hitherto proved or are likely to prove insufficient: and, before we apply what is called punishment, we ought to be certain that it is indispensable, and that better external circumstances within our power would not effect the desired improvement, and effect it much better.

This doctrine of *philosophical necessity*, as it is termed, is neither more nor less than a fact. It is not a dogma. All is cause and effect throughout nature; and the brain and its phenomena, being a portion of nature, must likewise all be cause and effect.

In the ignorance and superstition of the earliest periods of our race, when every natural event or result was ascribed to some invisible being, demon, angel, god, demi-god, or spirit,—as children in their ignorance beat the table or the ground if they hurt their heads against it, fancying it alive and blameable,—men *fancied* an inconceivable and imaginary something called spirit or soul, distinct from the brain, not matter, nor a property of matter; and, as ignorance and superstition still frightfully prevail, in the highest seats of education as well as in ordinary schools and among the uneducated,—for the present period is but the childhood of our race,—the absurdity is successfully propagated from older to younger, and rejected by those only who think courageously for themselves and venture to read books which are besottedly condemned. Such observing and reflecting persons cannot conceive anything in nature but matter and properties of matter; and some of these are honest enough to declare their convictions,—while some, wise as serpents, conceal them, and generally are so base as not merely to conceal them, but to profess in their writings and conversation, and perhaps vehemently, the popular crudities on this and on other topics, and to laugh inwardly at the folly of mankind and the worldly success of their own cunning, but despicable, course.

This inconceivable thing—not matter, and produced nobody knows when, whether when the earth was formed, when the offspring is formed, or at some subsequent week or month,

upon which points the stupidly learned have held diverse opinions, as may be seen in Burton's *Anatomy of Melancholy*,*—would still be a portion of nature, and therefore subject to nature's laws. Its devotees imagine that it has absolute will,—can will simply because it chooses; effect thus occurring without cause. But, it being a portion of nature, and therefore subject to nature's universal laws of cause and effect, some cause, when it wills, must make it will, just as much as must be the case with the brain when the brain wills; so that the spurners of the truth of necessity gain nothing in this respect by their fancy.

Neither do they gain as regards a future state. For the fancy of a soul and its immateriality does not imply immortality. "The immortality of the soul," says Dr. Rush, "depends upon the will of the Deity, and not upon the supposed properties of spirit. Matter is in its own nature as immortal as spirit. It is resolvable by heat and moisture into a variety of forms; but it requires the same almighty hand to annihilate it that it did to create it. I know of no arguments to prove that immortality of the soul but such as we derive from the Christian revelation."† Indeed, if immateriality did imply inherent immortality, inherent or natural immortality would imply previous existence, if not existence without beginning; yet we are not aware of having been alive before our brains.‡ But really the anxiety to believe in this fancied inconceivable thing, for the sake of believing in a future state, shews a sad want of high estimate of Christianity and of confidence in it. Christianity assures us that we shall live again and for ever: and this ought to be enough for Christians, without looking out for considerations to make a future life probable, or in truth to make it certain, without Christianity. For this is the argument of the soul fanciers—We must live for ever because we have a soul: and thus they would make the assurances of Christianity altogether superfluous.§

* "Hierome, Austin, and other fathers of the church, held that the soul is immortal, created of nothing, and so infused into the child or embryo in his mother's womb six months after conception; some say at three days, some six weeks, others otherwise." p. i., s. i., mem. 2., subs. 9.

† Med. Obs. and Inquiries. vol. ii., p. 15. Dugald Stewart concedes that "the proper use of the doctrine of the immateriality of the soul is not to demonstrate the soul is physically and necessarily immortal." *Outlines*, p. 227.

‡ Dr. Cudworth affirms that there never were any of the ancients before Christianity that held the soul's future permanency after death, who did not likewise believe its pre-existence.

§ Lord Stanhope, in a note to the second edition of Dr. Biass's *Anatomy of Sleep*, p. 452, says, "The final cause of dreaming is, I believe, to convince the unlearned and the unthinking, of the immateriality of the mind,

Let not, therefore, the Christian hug the fancy of a soul that he may believe in a future state: he wants no soul for this. He believes that "his body, though torn in pieces, burnt to ashes, ground to powder, turned to rottenness, shall be no loser,"* but be reproduced and rise from the grave, and be given up by the sea—he believes in the resurrection of his decomposed body: and even this cannot but be a miracle—a thing out of the course of nature, and to be believed solely on miraculous assurance. The learned and able Bishop Law asserts that the sentence passed upon Adam and Eve meant nothing less than a *total destruction* of existence; and that the idea of its implying a continuation of consciousness and real existence in some other place than earth, is *not sanctioned by Scripture*, but is the *philosophy of after ages*.† He adds that Archbishop Tillotson confesses that the notion of continuation is not found in the Bible; and, after a critical and elaborate examination of the words used in Scripture to denote soul and spirit and their various applications, he sums up the enquiry thus: "But neither do *these* words, nor any *others*, so far as I can find, *ever* stand for a purely immaterial

which my friend Dr. Elliotson does not seem to admit, although he ought to be convinced of it by his own researches in animal magnetism or mesmerism." Now I admit the immateriality of the mind, just as I admit the immateriality of muscular motion or secretion: a phenomenon is not matter, neither is the power or property of matter that produces the phenomenon, matter. The meaning of the excellent Earl, however, I suppose is that mental phenomena depend upon a certain thing called soul and immaterial. Now what the purpose of this fancy is I know not, unless to include the useless belief of the immortality of this soul, which it evidently does not. But my dog, now sleeping at my feet, is evidently dreaming away, for his legs move and he is barking, and most brutes dream, as Lucretius described. Is this to prove to them or to us that *they* have immaterial souls? If our dreams (which are nothing more than partial and imperfect excitement of the brain) prove we have a soul, they equally prove that brutes have a soul. Indeed, the cheese-mite has as real personality as the Archbishop of Canterbury: has perception, desire, will, &c. &c. Many horses and dogs are superior in intelligence to some human beings, and superior in moral worth to others.

Some have other arguments for the immortality of the soul. The heavenly-minded lawyer Tangle, as he poured from one hand to the other the guineas which were to bribe the electors to vote for Lord St. James, exclaimed, "Wonderful invention, gold coin, Sir! wonderful thing. If there is anything, Sir, that shews man to be the creature that he is, it's this. Scholars, when they want to raise man above the monkey—heaven forgive the Atheists—call him a laughing animal, a tool-making animal, a working animal. Sir, they've all missed the true meaning; they should call him a coining animal. I've thought of the matter much, Mr. Folder: and this"—and Tangle rattled the coins—"this is the true weapon against the Atheists, Sir,—and nearly all scholars are every bit the same as Atheists—just as toad-stools are often taken for mushrooms. No, Sir, no: they may call me what they like, but I see proofs of the immortality of the soul in this, Sir. No unbelief—I'm sure of it, Mr. Folder—no unbelief can stand against this," and Tangle again laid his hand upon the gold. *Shilling Magazine*, p. 489-90.

* Lord Bacon's *Christian Paradoxes*, 34.

† *Theory of Religion*, p. 345.

principle in man, as a substance, whatever some *imagine they mean* by that word, wholly separable and independent of the body. Bishop Jeremy Taylor assures us that the words of St. Paul in Corinthians directly affirm that a resurrection or being made alive again is granted, assured, and executed *by and in Christ alone*, and evidently suppose that the dead are not made alive till the resurrection, and that, had not a resurrection been provided, we should never have been made alive again after death.*

Let him look boldly at nature as she is, and not ignorantly rail against materialism. Let him acknowledge the fact which stares him in the face, that all the mental phenomena of man and brute equally are phenomena of brain—as heat and light are phenomena of inanimate matter. Its function is to produce these phenomena *as much* as the function of the liver is to secrete bile and of the muscles to contract and move our bodies. Not that cerebral phenomena *are* secretion and contraction, as some pious spiritualists virtuously misrepresent these expressions, but *as much* the function; that just as biliary secretion and muscular contraction are functions of the organs called liver and muscles respectively, so the production of mental phenomena is the function of the organ called brain, and the result of its composition and organization under the due influence of proper circumstances, a supply of suitable blood, warmth, &c., &c.; and as the brain is affected, healthy or unhealthy, so do these phenomena vary.

Let him not say, stupidly and untruly, that matter is inert and cannot think. Matter is nowhere and at no time inert—it is instinct with endless properties, and can and does think: our senses and our consciousness prove that it does.

The question of materialism is one of natural philosophy, and to be settled, like all considerations of nature, by the study of nature only, and not by reference to supernatural information, which should be appealed to for supernatural things only, such as we have no means of learning by observation and experiment (see pp. 137, 280); and wherever the Bible speaks of natural objects, it cannot be of greater authority than the sight of nature itself. Its writers spoke of natural things according to their own experience and opinions and

* *Doctrine of Original Sin*, p. 24. Brought up in the Church of England, and compelled to sign the thirty-nine Articles at Cambridge or have no degree in physic (the outrage upon common sense!) I was never taught to think so ill of matter; for I learnt the resurrection of the *body*, and that God himself (Article 2) sits in heaven with “his *body*, with *flesh*, *bones*,” &c., &c. (Article 4.) Some bigots will think it an argument to urge that these are glorified. But glorified flesh and glorified bone are still matter.

those of the parties to whom they addressed themselves; and it is now a settled point, that all enquiries into nature are to be conducted independently, without any reference to revelation (see p. 137); the only question among us being—is your statement true and your reasoning sound? I should, therefore, not have alluded to supernaturalism at all, but that there is such a childish, senseless outcry against materialism, that I was anxious to shew that materialism does not imply infidelity. But if it did imply infidelity, the only question still ought to be—is it true? and it should be argued on perfectly independent grounds: and in all circumstances, a noble nature will aim at doing all that is right, not to avoid punishment or gain reward, here or hereafter, but because his mature convictions satisfy him it is right. The doctrines of materialism and necessity are delightful, as far as they are merely truths. For the contemplation of unembarrassed truth is always delightful. They are also amusing; for to observe human beings and the brute creation all acting according to their organization and education, while each fancies himself acting of his own free, uninfluenced, causeless will, is the highest entertainment. To observe members of the same family, long separated from each other, not only resemble each other in features, but speaking, treading, nay, coughing like each other, and, if similarly organized in their heads, thinking and conducting themselves like each other, and to notice the effects of external influence upon them, so that the admission of an evangelical or a catholic governess among girls shall cause them to change their religious views and act for the rest of their lives under the new influence,—all thinking all the time how free and independent are their coughing, walking, speaking, and their *convictions*,—is an endless amusement. But the moral good is incalculable; for the result of truth must always be good. These truths teach us to be humble, however excellent our natures, for, not having made ourselves, we perceive that we act and think according to inevitable laws: and if our nature is bad and we act ill, though we may feel we deserve pity, we do not the less perceive that we are miserable human specimens—vessels of clay and not of gold. They teach us compassion and forgiveness; for we perceive that bad original constitutions and bad external circumstances are the cause of the wicked being wicked. There is no reason that we should not reprove the bad, in order to excite them to virtue,—that we should not *for their good* reprove them gently at first, and sternly afterwards if they will not listen to mild rebuke: there is no reason that we should subject ourselves to repetitions of ill-treatment by associating

with the bad (life is too short for this worry): but these truths make us anxious to urge upon mankind the duty of marrying only among healthy and virtuous stocks, and of endeavouring to enlighten the understandings and reform the circumstances of individuals and of society at large, in order to ensure happier results.

JOHN ELLIOTSON.

III. Review of "*Contributions to the Mathematics of Phrenology, chiefly intended to aid Students. Illustrated by a plate.*" By JAMES STRATON, *Secretary of the Phrenological Society, Aberdeen, 1845.*" 8vo. pp. 35. With a Communication from the Author.

MR. STRATON'S object is,

First, to show how the human head, or cranium, may be measured by very simple means, and with an approximation to mathematical accuracy, sufficient for practical purposes. Secondly, to graduate a scale, indicating the average size, the average range, and the extreme ranges of size which have been found among the various races of men. Thirdly, after measuring the head as a whole, and determining its place in the scale of size, to measure that whole in separate parts. And, fourthly, to determine the relative size of those parts in equally balanced heads.

His principal aim, in measuring separate parts, is to furnish the eye of the observer with a more definite range or standard whereby to estimate the more minute portions—the individual organs. He has, therefore, attempted instrumental measure to the *least* possible extent only, which would be useful for that purpose. The principal object in view, throughout, is to remove perplexing uncertainties, in attaching a meaning to the language of the masters, and thereby to impart a proper degree of confidence to the student, and, to the more advanced, an uniformity in the estimating and recording of size and proportions, which he believes has hitherto been unnecessarily difficult to attain.

He remarks that,

The shape of the human head, or cranium, may be described as partly cubical, and partly spherical. The latter seems to the eye to predominate so much, that, previous to an extensive series of measurements, it might readily be supposed that spherical was the only measure likely to approach accuracy.

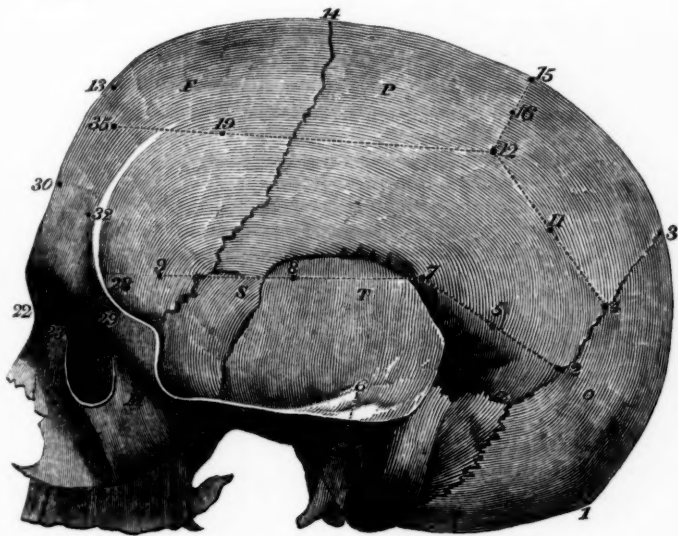
Yet according to his experience,

Ninety-five cases *at least* in each hundred give results varying from 15 to 40 cubic inches below the truth.

He therefore regards the spherical as unsuitable for the purpose of measurement.

The cast or skull may be measured to any degree of accuracy by marking the quantity of water which it displaces in a receiver of known dimensions. He immerses it, with the top downwards, till the surface of the water touches the articulation of the nasal and frontal bones and enters the openings of both ears. The receiver is as nearly square as possible, 10 inches long, 10 inches broad, and 8 inches deep inside, of pine deal, except that one side is a plate of glass, furnished with a perpendicular scale, divided into inches and tenths of inches. The Zero is about five inches from the bottom of the inside of the receiver, which is accurately filled with water up to this point before the head is immersed.

Every inch that the water rises will correspond to 100 cubic inches; that is, 10 by 10; and each tenth to ten cubic inches.



The above wood-cut represents a skull, on which the lines and points are marked, from which measurements are taken.

The anatomical parts are briefly the following—

BONES.—O the *occipital*, P the *parietal*, F the *frontal*, N the *nasal*, M the *malar*, S the *sphenoid*, and T the *temporal*.

SUTURES.—The *Lambdoidal* articulates the occipital to the parietal bones from 3 to a, and to the temporal from thence downwards.

The *Sagittal* unites the superior margins of the parietal bones, along the line 3, 15, 14.

The *Squamous* joins the temporal bones to the sphenoid and the lower margin of the parietals.

The *Coronal* touches the sphenoid at each side, and unites the frontal to the parietal bones.

The *Transverse* connects the frontal with the nasal at 22, with the malar at 29, and others more deeply seated.

POINTS OF MEASUREMENT.

1. Occipital spine.
2. Posterior margin of P at half the distance from *a* to 4.
3. Termination of the sagittal suture at the occipital bone.
4. Middle of the posterior margins of the parietal bones.
5. Middle of the straight line from 2 to 7.
6. External opening of the ear.
7. Middle of a straight line from 6 to 12.
On a straight line, joining 7 and 28, place—
8. Equidistant from 7 and 9, and
9. Equidistant from 28 and the parietal bone.
11. Middle of the line from 4 to 12.
12. Centres of ossification of the parietal bones.
13. On the middle line of F, equidistant from 14 and 22.
14. Middle of the coronal suture.
15. Middle of the sagittal suture.
16. Half the shortest line from 12 to the sagittal suture.
19. One third the horizontal line from 35 to 12.
22. Nasal vertex or middle of the transverse suture.
23. Internal angular processes of F.
28. Commencement of the temporal ridge.
29. Junction of M with the external angular processes of F.
30. Centre of the forehead.
32. Middle of the line joining 29 and 35.
35. Centres of ossification of F.

GENERAL DIRECTIONS.

Having selected a suitable cast or skull, mark with a pencil or bit of chalk the points 4, 12, 29, and 35; join these by lines and mark the points 11, 19, and 32. Finish the pointing in the following order :—1, 3, 15, 30, 22, 23, 28, 7, 2, 8, 9.

In measuring, the callipers is the only instrument required. In practice, I have found the time and labour very much abridged by a peculiar construction of the instrument. It has a scale attached, on which the inches and tenths "imperial standard," are marked the full length; these can be accurately read as soon as the instrument is adjusted to the intended points of measurement.

Mr. Straton considers that the human head or cranium may be measured as an irregular cube with almost perfect accuracy, and gives the following formula as the most simple and accurate, and applicable to every variety of case :

To find the average

Breadth.—Add the measurements from 5 to 5, 7 to 7, 8 to 8, and from 9 to 9; divide the sum by 4; the quotient is the average breadth.

Length.—The measurement from 3 to 30 is the average length.

Height.—Add the measurements from 6 to 16, from 1 to 3, and from 22 to 13; divide the sum by 3; the quotient is the average height.

Multiply the height by the breadth, and the product by the length. The result represents the cubic measure.

EXAMPLE I.

$4.1 + 2.3 + 2. = 8.4 \div 3 = 2.8$	Height	2.8
$4.5 + 5.1 + 4.6 + 3.8 = 18 \div 4 = 4.5$	Breadth	4.5
		<hr/>
		3.60
		9.0
		<hr/>
		12.60
From 3 to 30 6.5	Length	6.5
		<hr/>
		6.300
		75.60
		<hr/>
	Cubic inches	81.900

EXAMPLE II.

$5.6 + 3.2 + 2.6 = 11.4 \div 3 = 3.8$	Height	3.8
$5.4 + 6.4 + 6.2 + 5.4 = 23.4 \div 4 = 5.85$	Breadth	5.85
		<hr/>
		.190
		3.04
		19.0
		<hr/>
		22.230
From 3 to 30	Length	8.4
		<hr/>
		8.8920
		177.840
		<hr/>
	Cubic inches	186.6320

TABLE OF CUBIC MEASURE.

HEADS.	Height.	Breadth.	Length.	Cubic M.	Proof.
Dr. Gall	3·9	5·8	7·5	170	174
Rev. Mr. M.	3·9	5·5	7·7	165	165
R. B. Sheridan	3·8	5·6	7·8	165	165
F. Cordonnier	4·	6·2	7·2	178	180
Rajah R. Roy	3·8	5·8	8·4	185	190
&c. &c.					

We have heard Gall express his conviction that the head grow till at least forty years of age, and mention that Napoleon's hatter informed him that Napoleon's grew till it was at least five and thirty years old. "A physician, who was not a phrenologist, the late Dr. John Sims, bestowed great labour in weighing brains, and his results are very different from those of his predecessors. After weighing 237 brains, from the age of 1 year to above 70, he ascertained "that the average weight of the brain goes on increasing from 1 year old to 20: between 20 and 30, there is a slight increase in the average; afterwards it increases and arrives at the maximum between 40 and 50; after 50, to old age, the brain gradually decreases in weight."* This, like all accurate observations on points investigated by Gall, confirms the statements made by Gall years ago. Tiedemann, as correctly quoted by Mr. Straton, asserts and declares in the *Philosophical Transactions*, 1836, "that the Wenzels have shewn, that the brain arrives at its full growth about the seventh year, and adds that Gall and Spurzheim maintain that it grows till the fourteenth." Now Gall, in his second 8vo. volume, p. 157, says, "that the brain arrives at its full growth between the twentieth and fortieth years:" and at p. 430, "that the cerebral parts acquire their full development between the age of full growth and forty years:" and again in his third volume, p. 31, "that the brain of most men has hardly acquired its full growth before the thirtieth year; often not before the fortieth." No paper ever more disgraced the *Philosophical Transactions*, or the council who ordered the publication, than this of Tiedemann's. Mr. Straton very properly contends that our enquiries into measurements should embrace all ages and sizes from birth to fifty years at least, that we may learn the average size of the head and the range of sizes at birth, the ratio or rates of increase at different periods, the modification of development between infancy and maturity, and the effects on development and character from training.

The following gradation Mr. S. has seen so often, that in a similar family he would expect to find it as a matter of course.

M. aged	6 months,—size of head	72 cubic inches.
E	3 years,	98
P.	5	104
Jn. . . .	8	114
G.	10	121
L.	12	124

* Dr. Elliotson's *Human Physiology*, pp. 997.

Mt. . .	20 years,—size of head	128 cubic inches.
Js. . .	18	133
Wm. . .	15	147
A. . . .	22	142

Here, it will be observed, we find a gradation of relative age and size, which may be termed regular with irregularities. Wm., aged 15, had a larger head than any other member of the family at birth, and he still retains the peculiarity. Mt., the daughter, 20, has rather less than Js., the son, at 18, a fact quite in harmony with the well-known relative proportions of the male and female head. The other members of the family exhibit a regular gradation of age and size. To affirm that the head of any one of the family, even A., 22, has attained its full size, would be an assumption altogether unwarranted by any extensive class of facts that I know.

In Dr. Morton's *Crania Americana*, the internal capacity of many specimens of the five races into which Blumenbach divides mankind is given, and Mr. S. infers the external dimensions and the size of the head by his method, as follows :

	No. of S.	AVERAGE.			LARGEST.			SMALLEST.		
		Int.	Ex.	H.	Int.	Ex.	H.	Int.	Ex.	H.
Caucasian.....	52	87	105	130	109	131	159	75	92	114
Mongolian.....	10	83	101	125	93	112	138	69	85	106
Malay.....	18	81	99	123	89	107	132	64	78	98
American Aborigines..	147	80	98	122	100	119	146	60	74	93
Ethiopian.....	29	78	96	119	94	113	139	65	79	99

The Caucasian specimens are all but one taken from the lowest classes of society—a great defect.

From eight measurements of each of the heads of fifty-two leading men in America, Mr. S. infers the average size of the whole to be 165 cubic inches: the largest 170, the smallest 145 cubic inches.

Professor Tiedemann measured the internal capacity of skulls with millet seeds; and Mr. S. has calculated upon his measurements. But dry millet seed can hardly weigh exactly the same, measure for measure, at all times, and in all countries. It positively does not, Mr. S. has ascertained, occupy the same space, whatever care be taken in shaking, packing, and adjusting it. We can, therefore, not attach much importance to Dr. Tiedemann's data.

SMALLEST SIZES.

After ten years' practice in observation, during which I have
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measured more than 3000 heads, and formed an eye estimate of more than ten times that number, measuring every head in any way remarkable to which I could obtain access, I have to report the following as unique in my experience in the respective classes to which they belong:—

— L—, Esq., a gentleman of talents and learning, size of head, 111 cubic inches. C. A., aged 60, a village politician, orator, wit, poet, and tinker, a little above 100. Robert Duncan, aged 29, found employed in a large manufactory, 92. Robert Gibson, pauper, found in the Public Soup Kitchen, Aberdeen, one day,—18th May, 1845,—when all the youths found begging were conveyed there, during a benevolent effort to suppress juvenile mendicity, age about 7, 82 cubic inches. Girl belonging to a fisher's family, age between 6 and 7, size of head, 72 cubic inches.

From the latter's evidence previously quoted, we learn that 80 cubic inches is a common size of adult male heads in Spitalfields and some other parts. We are warranted from thence to infer that adult female heads are to be found somewhat less—say 70 inches,—and boys and girls still less, at or below 60 inches.

Dr. Voisin, of the Hospital of Incurables, Paris, as quoted by Mr. Combe, in his *System of Phrenology*, 4th edit. p. 40, states that "heads, 13 inches round and 9 over, are idiots of the lowest class. Heads, 17 inches round and 12 over, give glimpses of feeling and random intellectual perceptions, but without power of attention, or fixity of ideas," and "heads of 18 inches round give intellectual manifestations, regular, but deficient in intensity." Now, heads of 13 inches round and 9 over will generally range between 40 and 50 inches, cubic measure. Those of 17 round and 12 over will range about 70; and those of 18 inches round would, if tolerably well balanced, range 80 to 85 cubic inches. I must take leave to doubt the inferences which the latter part of the quotation would, without explanation, lead to. The pauper boy that I found in the Public Soup Kitchen had, as I have stated, a head of only 82 cubic inches, but it was well balanced, the constitutional temperament highly nervous, and the boy is quite as intelligent as could be expected at his age, in his circumstances.

I think it highly probable that the heads of 17 and 18 inches round, noticed by Dr. Voisin, were defective in regard to either balance of parts, health, normal structure or temperament: the latter I think most likely. And, to show cause for my conjecture, may here remark that, from the study of, not individuals only, but whole communities, living distinct from each other, but in precisely similar circumstances, I am disposed to believe that a person in whom the nervous temperament predominates, with a head of 120 inches, is equal, or nearly so, in mental scope and energy, to a person with a head of 140 inches, in whom the lymphatic temperament predominates.

In a quotation from a *Memoir* by Dr. James G. Simpson, Professor of Midwifery in the University of Edinburgh, given in the *Phrenological Journal*, for July, 1845, p. 245, we find the average

measurements of the heads of 60 male and 60 female children at birth given thus:—

Males, 13·983 in. round, and 7·429 in. over from ear to ear.

Females, 13·617 7·221

This implies an average cubic measure of about 40 inches. And as some are more and some less, the probable range of the infant head at birth may be from 30 inches, or less, to 50 inches, or more, but evidence to fix the limits is wanting.

LARGEST SIZES.

THE MAXIMUM.—The highest point, on the scale of size, should not be so very difficult to determine, seeing that the largest heads are precisely those most likely to make their existence known among their fellow-men—to stamp their impress, good or bad, as the case may be, on the age in which they live.

CAUCASIAN.—The largest head of which I have had an opportunity of measuring the plaster cast is that of Joseph Hume, Esq., M.P. After making ample allowance for hair, the cast gives a cubic measure above 210 inches. I have been told, by what I believe to be good authority, that Mr. Hume requires a hat of $8\frac{1}{2}$, and that Daniel O'Connell, Esq., the famous Irish M.P., requires a hat nearly the same size. If this be true, and if the ordinary portraits which we see of him be tolerably correct, his head is broad in more than the average proportion, and must, therefore, be about equal in size to that of Mr. Hume. Mr. O'Connell appears also to combine a peculiarity which I have rarely found in large heads, namely, a very active and enduring temperament. Napoleon Buonaparte was an extraordinary example of such a combination. In short, we may safely assume that 220 cubic inches is about the extreme limits of size which the healthy human head ever attains among the Caucasian race.

MONGOLIAN.—The largest head of this race which I have seen a measurement of, and whose history is known, is that of Tyloolick, an Esquimaux, who accompanied Captain Parry in one of his expeditions. The skull, according to Professor Tiedemann, measures inches internal, hence the head must have been about 145 cubic inches. Eenoolooapik, a young Esquimaux chief, who accompanied Captain Penny in the whaling ship, *St. Andrews*, to this country, a year or two ago, has a head about the same size as his countryman just named.

AMERICAN ABORIGINES.—The largest head of this race, whose measurement and history I have seen, is the famous warrior and chief, "Black Hawk,"—rather more than 165 inches.

ASIATIC.—The Rajah Rammohun Roy stands pre-eminent among the Asiatics known in this country for a head of great size, finely balanced. The cast we possess measures, after allowing for hair, above 185 inches.

MALAYAN.—Professor Tiedemann gives a male native of Huahaine, equal to 159 inches. We have no sketch of history, however, whereby to discover whether the head was healthy or not.

ETHIOPIAN.—The cast of the head of Eustache, the amiable and talented negro of St. Domingo—one of the finest specimens of human nature ever known—measures 155 inches. Professor Tiedemann gives a negro of Congo equal to 170 inches; but it is so far above the next highest specimen measured, that, in the absence of a sketch of history, I do not venture to adopt its measure.

The following is a condensed view of the entire evidence connected with this department:—

	Average.	Average Range.	Extreme Range.
Caucasian.....	137	100 to 160	40 or less to 220
Mongolian	127	90 „ 140	40 „ 145
Malayan	126	98 „ 132	40 „ 159
Ethiopian.....	123	100 „ 139	40 „ 155
American Aborigines ..	122	93 „ 146	40 „ 165
Asiatic	119	95 „ 137	40 „ 185

It remains in this department to suggest a scale, by the use of which the student will obtain definite ideas of what is meant by a “large head,” a small, a full, a moderate-sized head, &c. It fortunately happens that this is a very simple and easy part of the matter, inasmuch as we find it already in use all but complete.

The following scale which we are in the habit of using to designate size in our ordinary practice, will, with the simplest possible addition, be admirably adapted to the purpose in view.

SCALE IN USE.

- | | |
|------------------------------|--------------------------------|
| 1. | 12. Rather full. |
| 2. Idiocy. | 13. Rather full or full. |
| 3. | 14. Full. |
| 4. Very small. | 15. Full or rather large. |
| 5. Very small or small. | 16. Rather large. |
| 6. Small. | 17. Rather large or large. |
| 7. Small or rather small. | 18. Large. |
| 8. Rather small. | 19. Large or very large. |
| 9. Rather small or moderate. | 20. Very large, |
| 10. Moderate. | 21. Very large or extra large. |
| 11. Moderate or rather full. | 22. Extra large. |

To designate the absolute size of the head, it is only necessary to add a 0 to each number of the series, to represent the cubic inches, and the words, retained as they stand, have a definite mathematical meaning which cannot be misunderstood.

PROPOSED SCALE.

C. Inches	C. Inches.
10.	120. Rather full.
20.	130. Rather full or full.
30. Idiocy	140. Full.
40. and	150. Full or rather full.
50. Infancy.	160. Rather large.
60. Small.	170. Rather large or large.
70. Small or rather small.	180. Large.
80. Rather small.	190. Large or very large.
90. Rather small or moderate.	200. Very large.
100. Moderate.	210.
110. Moderate or rather full.	220. Extra large.

EXAMPLE.—Given, a head of 140 cubic inches, in which five different degrees of size of organs are just perceptible, two above the medium or average size, and two below. The proper designation of size for the medium organs would obviously be 14, *i.e.* "full." The next size above medium, if only just perceptibly larger to the eye of a *competent* observer, must be 15, "full or rather large," meaning thereby just equal to the organs in an accurately balanced head of 150 cubic inches. The largest organs in the given head will be 16, "rather large," or equal to an equally balanced head of 160 inches.

The next size below the medium would be 13, "moderate, or rather full," and the smallest would be 12, "moderate," equal to the organs in a truly balanced head of 120 cubic inches.

The same method might, of course, be adopted with heads of 100, 150, 160, or any other size, and whether the organs exhibited one, two, three, or more gradations of size above or below the medium.

MEASUREMENT OF PARTS.

The regions proposed for separate measurement are—

- The Frontal,—seat of the Intellectual Faculties
 — Coronal, ——— Superior Sentiments.
 — Occipital, ——— Inferior ditto,
 and Domestic Feelings.
 — Lateral, ——— Aggressive Dispositions.

It is proposed to measure each region or position just named, as if it were formed like a pyramid—the apex dipping into the chorda oblongata, and the base being a specific part of the surface. Mr. S. believes that there will be sufficient accuracy, if we measure the largest possible portion, or nearly so, in each region, to which a regular outline of surface can be easily and certainly found by observing anatomical points and lines—provided that the part measured always bears a pro-

portional relation of size to the entire region. The superficial space measured of each region will therefore be a parallelogram, always below the actual size of the phrenological group measured.

ANTERIOR.

(The numbers refer to the wood-cut, and points of measurement, described page 427.)

Length	From 32	to 32
Breadth	From 22	„ 13
Height	From 6	„ 32

NOTE.—Breadth—From 22 to 13, and from 23 on one side to 35 on the other, are measurements so nearly uniform in most cases, that, in practice, I generally prefer the latter, because the points are readily seen.

CORONAL.

Length	From 15	to 13
Breadth	From 19	„ 19
Height	From 6	„ 16

NOTE.—Length—From 15 to 13, and from 12 to 35 are usually the same, except in peculiar cases. The measure may therefore be taken from any point on the line joining 15 and 12, to any point on the line from 13 to 35, which obviously gives the truest average of the space indicated.

Breadth.—Avoid irregularities on the temporal ridge.

Height.—In most cases the calliper may be passed on line from 16 to near 35, touching the surface at all points.

LATERAL.

Length	From 2	to 9
Breadth	From 6	„ 12
Height ..	The average breadth of the head.	

NOTE.—The Lateral is really two parts, one on each side, and may be measured as such by taking one-sixth the height, calculating twice, and adding the products; but as only additional trouble would be gained, it is better to calculate the two as one, following the general rule.

POSTERIOR.

Length	From 1	to 15
Breadth	From 11	„ 11
Height	From 6	„ 3

NOTE.—Length—In most cases the calliper may be passed from near 12 on one side to the other, touching the surface at all points. It is, therefore, easy to avoid irregularities.

Height—avoid irregularities at 3, by measuring a little to one side.

Generally—Avoid local irregularities by taking that which is most obviously the nearest average of the specified measurement.

RULE.—To find the cubic contents, multiply the *length* by the *breadth*, and the product by one-third the *height*.

Example.	Lnth.	Brdth.	Hght.	C. M. or nearest integer.
Anterior	3·7	× 2·7	× $\frac{4·5}{3}$	(i.e. 1·5) = 14·985 say 15 c. inches.
Coronal	4·4	× 5·2	× $\frac{4·8}{3}$	(i.e. 1·6) = 44·928 „ 45 do.
Lateral	4·9	× 3·4	× $\frac{5·4}{3}$	(i.e. 1·8) = 29·988 „ 30 do.
Posterior	5·2	× 5·	× $\frac{5·2}{3}$	(i.e. 1·7) = 44·28 „ 45 do.

Aggregate 134·881 say 135 c. inches.

The above measurement in regions, is that of a head which by proof gives 150 inches. The aggregate is, therefore, less than the proof by 15 inches, *i. e.* equal to one-tenth part of the whole head.

The deficiency is, as I have already stated, intentional, and practically unavoidable. It is of no consequence, however, if it be very nearly equal on each part *in proportion to its size*. The student may easily examine for himself by lining and pointing a cast or skull in the manner specified page 7, and then measuring the specimen, when he will find that the *anterior* is measured slightly too short. The *coronal* is measured rather too narrow. The *lateral* does not include a part near the medulla oblongata; a protuberance, so to speak, on the lower side of the pyramid is not measured. The same remark applies to the *posterior* portion. I repeat, then, that each part is deficient, as nearly as can be, in proportion to its size, and that deficiency is a constant quantity, *viz.* one-tenth part. The correction is, therefore, so simple, that it can be instantly made to any possible number within our range of calculation. Thus the preceding example is corrected as follows, and all others in the same way :

	Measured.	Add One-tenth.	Corrected.
Anterior	15 inches.	1·5 =	16·5 inches.
Coronal	45 „	4·5 =	49·5 „
Lateral	30 „	3. =	33. „
Posterior	45 „	4·5 =	49·5 „
	<hr/> 135	<hr/> 13·5 =	<hr/> 148·5 proof 150.

In practice, it simplifies the process very much to omit the correction in all the parts except the aggregate; and every useful purpose is answered, when it is distinctly understood and recollected that the correction has to be made.

EQUALLY BALANCED HEADS.

Such are those which exhibit a certain relative proportion of all the parts, whatever be the absolute size of the head.

The balance is rarely complete. Mr. S., from measuring a large number in the manner mentioned, infers that the following are the proportions of the regions.

The *Anterior* or intellectual, one-tenth part of cubic measure of the whole head.

The *Coronal*, equal to three times the anterior, or three-tenths of the head.

The *Posterior*, equal to the Coronal.

The *Lateral*, equal to twice the Anterior, or two-tenths of the measure of the head.

It will readily be understood that every variety of size may exhibit the same shape and proportions, and that the same size may exhibit every variety of shape and proportions, but it may not be so readily admitted that the same size and proportions may be found in a considerable variety of shapes; yet so it appears to be. The long and narrow head, such as Mr. Goss; the short and square heads, such as Dr. Gall, or Cordonnier; the round and high heads, such as Mr. King, and the common busts of Sir Walter Scott, may, I believe often do, exhibit the same size in whole and proportion of parts as the type represented by the model bust.

Mr. S. gives a long list of the measurements of regions in the heads and skulls of intellectual, moral, and criminal persons, and of different nations, and thus comments upon a few examples, first remarking:

That it is the constant, or general features only, of the individual character, which will be made apparent in most cases by the measurements. When striking features of character turn upon one or two prominent or defective organs in one or more of the groups, such features will appear in the measurements so far only as the general size of the region is affected by the excess or deficiency.

EXAMPLE I.

		Intel.	Mor.	Aggr.	Dom.
Caucas. Model, average size.....	137 ..	14 ..	41 ..	27 ..	41
Dr. Gall,	174 ..	20 ..	54 ..	34 ..	46
Model, correspond. size, ..	174 ..	17 ..	52 ..	35 ..	52

The first remarkable peculiarity of Dr. Gall's head is great size, 174 inches—the average of his race being 137. The second is the still greater size of the anterior, or intellectual region, 20 inches—the model proportion being 17 inches for the corresponding size, and 14 inches for the average. The coronal region appears, by the cast to be unequally balanced in some of the organs; but, upon the whole, it is slightly above the model proportions, and far above the average—being 54 to 41. The lateral is slightly below the model (34 to 35), and the posterior still farther below (46 to 52).

EXAMPLE II.

		Intel.	Mor.	Aggr.	Dom.
Asiatic. Model, average size,	119	12	36	24	36
Rajah Ramah. Roy.	190	19	64	38	45
Model, correspond. size.	190	19	57	38	57

Rajah R. Roy, the famous Hindoo chief, was a philosopher and a philanthropist of the highest order. In size of head, he towers above his fellow-Asiatics like a giant among pigmies—he being 190, they averaging 119. The intellect is exactly the model size on the whole, but some of the organs are slightly above and others slightly below the equal balance. The coronal is far above the model size. Some of the organs are far below and others farther above the model balance.

EXAMPLE III.

		Intel.	Mor.	Aggr.	Dom.
Caucas. Model, average size.	137	14	41	27	41
Hare	150	16	40	40	44
Model, correspond. size.	150	15	45	30	45

Hare, the associate of the notorious Burke, it is allowed by all, was the most infamous of the two. Burke had the first offer to be admitted king's evidence, and he refused. Hare sacrificed his associate to save himself. His head is considerably above the average (150 to 137). The intellect is above the model proportion (16 to 15), and still farther above the average (16 to 14). The coronal is not only below the model (40 to 50), but even below the average (40 to 41). The aggressive is far above the model (40 to 30), and still farther above the average (40 to 27). The disproportion between the moral (5 below) and the aggressive (10 above) is 15 inches, being nearly the entire size of the intellect.

EXAMPLE IV.

		Intel.	Mor.	Aggr.	Dom.
Ethiopian. Model, average size	123	12	36	24	36
Eustache	155	15	51	31	41
Model, correspond. size.	155	15.5	46.5	31	46.5

Eustache.—“No situation could be more unfavourable to virtuous conduct than that of Eustache when he was a slave, associated with slaves in a war of extermination against their masters; yet such was the preserving power of a high moral and intellectual organization, that he nobly discharged his duty to both belligerents, and triumphed over every temptation.” *Mr. Combe's System*, p. 776. During an insurrection in the Island of St. Domingo, he was the means of saving the lives of more than 400 of the white population. In every situation in which he was placed, he discharged his duty with unexampled industry and fidelity. The French Institute awarded to him the “Prize of Virtue,” on the 9th of August, 1832, and the Government gave him a handsome annuity.

The head of Eustache is far above the Negro average, (155 to 123). The anterior is equal to the model proportions. The coronal is above

the model (51 to 46), and several of the organs are much farther above the equal balance.

Among the multitude of comparisons which will readily suggest themselves to the mind of the student, I shall only instance one more, viz. :—instead of comparing the size of the different regions with each other, and with those of other heads, compare the different sizes of model, or equally balanced heads which correspond with the separate regions of the individual heads, thus—

	Measurement of Regions.				Corresponding size of Model Heads.			
	Intel.	Mor.	Aggr.	Dom.	Intel.	Mor.	Aggr.	Dom.
Dr. Gall	20	54	34	46	200	180	170	153
R. R. Roy . . .	19	64	38	45	190	210	190	150
Hare	16	40	40	44	160	130	210	145
Eustache . . .	15	51	31	41	150	170	155	140
Linn	18	46	46	46	180	153	230	153
Greenacre . .	14	32	32	42	140	110	160	160

Here we see the anterior region of Dr. Gall's head is equal to the same part of a model of 200 inches. The coronal in R. R. Roy equals that in a model of 210. The lateral region of Linn is equal to the same region in a model head of 230 inches. Thus may the comparisons be varied to any extent, and in any way which may be deemed most appropriate to elucidate the concomitance of size and character.

It must be admitted, however, that we are not yet prepared to understand the full force or value of such comparisons, and indeed cannot be so, until it is known what degree of functional energy, or what amount of mental manifestation corresponds to given sizes of heads, regions, and organs, under specified circumstances; the first essential step towards the solution of this problem, or rather series of problems, is to determine absolute size of parts with the necessary degree of accuracy.

From what has been stated regarding the measurement and proportions of parts, it will be obvious that the volume of each region, as ascertained in the manner specified, determines its place on the scale of size, or, in other words, gives the average size of the organs composing the group. Thus,

Anterior.—The cubic inches and the point on the scale are always the same.

EXAMPLES.

10 inches, moderate; 14, full; 16, rather large; 18, large.

Coronal.—The cubic inches divided by 3, gives the point on the scale.

EXAMPLES.

$42 \div 3 = 14$, full. $48 \div 3 = 16$, rather large.

Occipital.—Same as the coronal.

Lateral.—The cubic inches divided by 2, gives the point on the scale.

EXAMPLES.

$20 \div 2 = 10$, moderate. $30 \div 2 = 15$, full, or rather large.

It remains for the eye to determine the size of the individual organs, guided throughout by the ascertained average, in retaining as nearly as possible the mathematical value of the terms used. This is to be done in the manner described page 23, with this difference, that the absolute size of each region (instead of that of the head) is now to be taken as the basis of estimate and comparison.

We have not hesitated to make these copious extracts from Mr. Straton's pamphlet, because he evidently has published it not for emolument, but for the dissemination of truth, and because so little is published on cerebral science that is an addition of real knowledge. At our request, communicated through a friend, he has furnished us with the following additional matter.

S. I. T. O.

Gratified to find the conviction very unanimous that our present mode of estimating size in phrenological observation is so imperfect as to warrant any change, however little, provided it be for the better; and supported by some of the most eminent phrenologists in the opinion that we are prepared to advance some steps in this department, I gladly avail myself of permission to submit a few statements, which are chiefly intended to elucidate more fully some of the points treated of in my *Contributions to the Mathematics of Phrenology*, and to which my wish to economize your space will induce me to make frequent reference for additional information.

The anxious desire which exists to effect improvement in our mode of observation is indeed little to be wondered at, seeing that the instant we can substitute *fact* for *opinion* (well founded though it be), accurate measurement for empirical estimate, recognized standard value for variable, indefinite, individual judgment, we rank phrenology among the "exact sciences" in the strictest sense of the term; we invest our science with precise and uniform ideas of size; we extend our field of accurate comparison over every accessible portion of the human race; we secure the co-operation of many powerful minds who can admire no evidence short of mathematical demonstration in cases where that may reasonably be required; and we enable the intelligent, honest, scientific phrenologist to take his proper place, apart from the ignorant, impudent, money-hunting quack, who can then, and

then only, be tried by a standard which will secure his conviction, and before that tribunal from which there can be no appeal.

Absolute size of the head. This is necessarily the basis of all the subsequent steps in estimating development; hence it is of the utmost importance to be accurately determined: nevertheless in prosecuting my investigations in the mathematics of phrenology, nothing surprised me more than the fallacious nature of our ordinary modes of measurement for effecting this purpose. It soon appeared to me that it is far better to leave the eye alone to judge of the absolute size of individual heads, because in so doing the chances of error are considerably lessened; or at any rate the eye is not misled by trusting to a false guide. The few examples taken at random, and quoted in the following table, will make this point plain to such as may not have previously happened to notice it. The first column contains the sums of six measurements taken by a tape-line, as follows: 1. greatest circumference of the head; 2. from the oc. sp. over the top to the transverse suture; 3. from the oc. sp. over Cautiousness and Causality to the transverse suture; 4. from ear to ear over Self-esteem; 5. from ear to ear over Veneration; 6. from ear to ear over Comparison. The above series is perhaps as good for our present purpose as any other that could be taken by the same means; we shall judge of their accuracy presently.

The second column contains the sum of six measurements by callipers, as follows: 1. from Secretiveness to Secretiveness; 2. from Constructiveness to Constructiveness; from Concentrativeness to Eventuality; 4. from ear to Concentrativeness; 5. from ear to Firmness; 6. from ear to Eventuality. This series is all taken from and to central points, and are consequently equal to any that can be taken and used in the same way.

The third column shews the absolute size in cubic inches as determined by displacing water.

No. 1.	97	38	174	No. 8.	93	35	135
2.	98	37	165	9.	93	36	150
3.	98	38	180	10.	91	34	148
4.	95	38	180	11.	87	35	138
5.	91	35	155	12.	92	34	145
6.	85	32	117	13.	88	34	130
7.	89	34	135	14.	86	33	130

By comparing the above columns, without referring to the specimens measured, or aiding the memory and judgment by looking at the names, the fallacious nature of such mea-

surements taken to ascertain absolute size will be obvious; they are not simply useless, they are positively pernicious, because they mislead when trusted in.* It can hardly be otherwise than that innumerable errors should be fallen into by those trusting to such measurements; for the fact cannot be got over, that an accurate estimate of the absolute size of the head is the basis of all subsequent steps in the taking of development.

In the *Contributions to the Mathematics of Phrenology*, page 8, it is shewn how the absolute size of the head may be determined by a few measurements and a simple calculation. It may here be added, that after measuring a few dozens of specimens by the method referred to, individuals possessing full average powers of observation will rarely find it necessary in ordinary cases and, where great accuracy is not required, to have recourse to actual measurement, (though after some practice the whole can easily be done in from three to five minutes) the human head is an object which the eye can easily grasp—if I may so speak—and will at a glance in ordinary cases form a very accurate estimate of the absolute size. This statement may be doubted by parties not accustomed to estimate cubic measure; be it so. But all my experience warrants the affirmation, that if the head to be measured does not differ much from the ordinary shape which the observer has practiced measuring, he will find that as a general rule it is not difficult to say at sight what is the cubic measure within five inches of the truth. Such being the case then, it is obviously better, even on the score of mere saving of labour, to practice measuring absolute size in preference to any other mode; which, though it may appear at first sight more simple, yet by which no extent of practice will enable the observer to estimate size with the same degree of accuracy.

The best rule for practice is to measure every head carefully, until the eye acquires precision and the observer confidence; after which, measure ordinary heads occasionally to make sure that the eye retains its accuracy, and uniformly measure every head in any way remarkable for shape or size, when doubts are felt, or great accuracy required.

The proportional quantity of brain, which corresponds to different sizes of head, is somewhat variable, and requires to be noticed. Rules for estimating the brain, bone, and other

* The specimens measured are the casts of the following heads and skulls in the order of the table,—Gall, Rev. Mr. M., Cordonnier, Linn, Eustache, C. Fisher, M'Innes, Greenacre, Hare, Burke, Martin, Burns Swift, Wurmser.

coverings separately, are given in the *Contributions*, page 14. A few examples will here suffice to make the whole obvious.

Size of Head . .	70 cub. in.	Brain . .	40.	Coverings . .	30 cub. in.
"	93	"	60.	"	33 "
"	122	"	80.	"	42 "
"	146	"	100.	"	46 "
"	160	"	110.	"	50 "
"	172	"	120.	"	52 "
"	190	"	135.	"	55 "
"	210	"	150.	"	60 "

Above it will be seen that the size of the brain increases more rapidly than the coverings in proportion to the whole head. The first line multiplied by two would give size of head 140 cubic inches, brain 80, and coverings 60 cubic inches; and multiplied by three it would give, head 210, brain 120, and coverings 90 inches, whilst the above table deduced from actual measurement and calculations, shows that a head of 146 inches encloses 100 inches of brain, and has only 46 inches of coverings. And that a head of 210 inches encloses 150 cubic inches of brain, and has only 60 cubic inches of coverings.

It follows as a matter of course that if we assume 10 cubic inches to represent a gradation in size, and it is the most convenient size perhaps that can be taken, a head of 140 cubic inches is not only equal to twice 70 in native power, but two sizes more, *i.e.* equal to 160, as compared with smaller heads, and that a head of 210 inches is equal to three times that of 70, and three sizes more. In practice it will be very near the truth to take 45 cubic inches as the size of the coverings of medium heads; and it is only in very large and very small cases of adult heads, where it is necessary to substitute a different proportion in estimating development or mental power. I have throughout assumed, and necessarily so, that the coverings are constant as regards thickness. I believe that, as a general rule, they are sufficiently uniform for our purpose; but I have long suspected that individuals in whom the lymphatic temperament preponderates greatly, have thicker bone and integuments than those in whom the nervous preponderates.

The *average, mean*, or medium size of head which prevails among different tribes and nations, is a point of great consequence to be known; but it is difficult, or at any rate laborious, to secure accuracy, as we shall see presently; but let us first distinctly understand, what is the precise nature of the average or mean which it is important to know. There

are, strictly speaking, two average or mean sizes connected with our enquiry. First,—the mean between the two extremes of size. Is this the important point to be determined? We shall discover whether it is so or not by reflecting on the points to be elucidated in this department. Let us see—

As size is, *ceteris paribus*, a measure of power, we conclude that among nations, as among individuals, force of character is determined by the average size of head. And that the larger-headed nations manifest their superior power by subjecting and ruling their smaller-headed brethren—as the British in Asia for example. Now shall we discover the key to the superior power of the British character, by finding the mean point between the extreme sizes of head? Assuredly not; for we possess tolerably conclusive evidence that as large heads may be found in Hindostan as in Britain, and as small heads in the latter as in any part of Asia: such being the case, it follows that the mean between the two extremes of size is the same in both countries, it therefore affords no key to national character.

But there is as we have said a second average or mean connected with our inquiry which we will find more important to know, and which we may illustrate thus.—Suppose that 1000 heads of any tribe or nation are measured accurately, the sums added together and the result decided by 1000, the quotient obtained would represent a head different it might be from any of the 1000, but if so it is one which would represent the true size of the national head more accurately than any one of the 1000. Or suppose again that 10,000 or 100,000 heads were measured in the same way, the quotient then obtained might be slightly different from the former, considerably different from any one of the heads measured, but in so far as it differed from all the others measured, so much more nearly would it be a true representative of the national head to which it belongs. Let us then for the sake of simplicity call the head thus represented the *average* head, and the medium between the two extremes the *mean* head.

From the evidence which I have seen, I am led to suspect that the extremes of size (and of course the means also) are the same, or nearly so, in all countries. Be this as it may, the evidence is conclusive that the *average* size of head differs to a very great extent in the different races, nations, and tribes of which the human race is composed. Such being the case, it follows that when we have discovered the average size of head of any tribe or nation, we are so far prepared to estimate its national power of mind and force of character.

446 *Cure of a Contracted Foot, &c., with Mesmerism,*

The following extract from the *Contributions to the Mathematics of Phrenology*, p. 21, will illustrate our position :—

Average size of Caucasian head	137 cubic inches.
„ Mongolian	127 „
„ Malayan	126 „
„ Ethiopian	123 „
„ American Aborigines	122 „
„ Asiatic	119 „

The sizes are given as approximations to the truth. From the small number of specimens of mad of the races which have been measured, we are quite unable to be sure of accuracy; this indeed cannot be looked for until extensive series of measurements have been produced among each race on its native soil.

JAMES STRATON.

IV. *Case of a Contracted Foot with severe Pain, cured with Mesmerism.* By Dr. ELLIOTSON.

(Continued from last Number.)

A TYPOGRAPHICAL error occurred in the last of the three quotations prefixed to my account of this case. I remarked that Mr. Evans Riadore's charge of impiety was stale; but no such canting charge appeared, because the word *injurious* had been printed for *impious*. The passage should have run thus :

"Thus we may hope, &c., to recover those strayed patients who have unwittingly confided in the impious modern systems, of which it may be said, that they were conceived in selfishness, and have been brought forth in murder."

The case, it will be remembered, was perfectly, satisfactorily, and pleasantly cured by mesmerism performed in the ordinary mode, after the very coarse *method* of mesmerising by making the patient stare upwards immoveably at some inanimate object had failed,—coarse, because it is usually very disagreeable, making the eyes smart and run or ache, the head to ache, and occasionally inducing convulsions; and no wonder, since the deviser directs us in his book (p. 27) "to produce the *greatest possible strain* upon the eyes and eyelids." Neither the failure nor the disagreeable effects in this case can be ascribed to its not having been well performed; because the deviser of it says in his book (p. 70), "Dr. Chawner, however," who had accompanied Miss Collins to Manchester and seen the staring-upwards plan practised, "hypnotized her as he had seen me do, and put it (her head) right imme-

diately;" he did so again at the end of a week, when she experienced a relapse, and again on a second relapse; and on the occurrence of several relapses her mother always succeeded as perfectly as either the physician or surgeon (see above, p. 343). Indeed, when the foot became affected, the mother still succeeded in making her stare till she was asleep, but no good resulted on the disease. At length Dr. Chawner was unable to cause even sleep, though each trial lasted about half an hour; and each caused pain of the head and eyes. When again he became able to induce sleep, he "could not in the least move her foot;" and, "after she had remained asleep for two or three hours, he awoke her, and desired that hypnotism (the staring upwards plan) should not be tried again for some time, as it had made her *so much weaker*, and had brought on *great pain in the head and eyes*" (p. 346). At the end of two months he tried again and sent her to sleep, though without any beneficial effect on the ankle. I shewed that the staring upwards plan was only a coarse mode of mesmerising (p. 354-5): and I have since met with another fact in it. I called upon a lady who wished to consult me upon the eligibility of mesmerism in her case. A sister was present, and said to be very susceptible. I requested her to allow me to try. She sat down, and I raised my hand above her eyes to begin a pass, when I observed she stared fixedly upwards. I begged her to look without any effort towards me, and asked why she stared upwards. Her reply was, that this was the way she had been mesmerised; for her sister's husband had been the operator, and he had learnt the way at Manchester. She looked towards me, and, after about a dozen slow passes, her eyes closed and she was in the mesmeric state, though conscious of everything around her. At length I restored her readily by transverse passes. When I called again, she informed me that the condition I induced was precisely the same in every respect as when she had been made to stare upwards at an inanimate object; that one was as truly mesmeric as the other; and that she had on these occasions as well as on that felt drawn to the mesmeriser, but had restrained herself when I operated by passes, whereas when her brother-in-law operated in the way which he learnt, by making her stare upwards, &c., she could not help yielding to the attraction and moving in every direction that he moved, and ran about the room or out of the room after him. She, however, much preferred the mild method by passes, as it was pleasant; whereas the coarse method by staring upwards made her eyes smart, and be stiff and painful for some time afterwards. I may mention that, as all the known effects

of mesmerism occur spontaneously, as we say, in diseases, attachment to a particular person sometimes characterizes cases of spontaneous sleep-waking or analogous states.

I now proceed with the account of the phenomena. Those already mentioned are *sleep-waking*, and in it *attachment to the mesmeriser*, with various consequent subordinate phenomena, and the successful determination to do certain things at certain times in the waking state, although in this no trace of thoughts, words, deeds or impressions of the sleep-waking state was left in the memory.

Catalepsy and *rigidity*.* The second time that I mesmerised her—the first time that she went off—these symptoms took place (p. 345). The catalepsy occurred first, and in a few minutes was changed to rigidity; and rigidity continued to be the condition of the voluntary muscles of the extremities, back, and trunk ever afterwards, except at the end of the first week for one day, on which the catalepsy, for no apparent reason, occurred for a few minutes, and except at the end of a month for one day, on which she was very low spirited without, as she said, knowing why, when there was not even rigidity. I know not why the disposition to catalepsy or rigidity occurs in one case and is absent in another, or occurs in the same case at one time and not at another in, the mesmeric state; or why one sometimes changes to the other. Like all the phenomena, the disposition comes forth spontaneously; and, if it is seemingly sometimes connected with certain other phenomena or certain processes, at other times no such connection appears. There is indeed no uniformity in the sequence or concurrence of any mesmeric phenomena.

The upper extremities are usually much more rigid than the lower,† in both spontaneous rigidity and that induced by passes, and when there is feebleness this is greater in the lower than in the upper extremities; and in disease, the two legs are oftener palsied than the two arms. Her upper extremities, not the lower, were rigid, together with the neck and trunk in some measure. The rigidity manifested itself sometimes at once, if her arm, &c. was still; sometimes not till an effort was made by others to move her arm, &c., when a resistance was given and rigidity manifested; if I held her arm, &c. perfectly still as soon as I had brought it into a new

* Some persons, unacquainted with medicine, confound catalepsy and rigidity (Vol. II., p. 67, &c.), as others confound coma and fainting (Vol. I., p. 316; Vol. III., p. 42.)

† See Vol. II., p. 48-9.

position, it presently fixed. If, her hand being relaxed, I begged her to extend it, or a finger, and hold it still, or rub it on the arm of her chair or any thing else—an action that did not at all interfere with its extended state—it fixed presently.

The rigidity, however, did not prevent voluntary movements if she was instigated by emotion to perform them. She could not move her extremities by merely willing to do so; but under an emotion, as when I suddenly touched any part of her in fun as if to plague her, she would instantly stretch forth her hand to seize me, or would withdraw her shoulder or head from the contact.* But the act was only instantaneous, and whether in this instant of time her wish was fully accomplished or not, the parts set again as if all solidified.† By my suddenly touching her now here and then there with the point of the finger, she could thus be rapidly put from one attitude into another. On my touching the back of her hand, for instance, she extended all her fingers widely and turned her hand backwards towards mine; but the movement was only for a moment, and her hand remained wide open in the air: if I touched her palm, the hand instantly closed in order to grasp mine and moved after mine, and then in a second was thus fixed. If strangers touched her, she suddenly withdrew her hand or head, as it might be. The rapidity with which a succession of these movements and the subsequent fixings and new attitudes and positions might be made to occur, was most amusing and most beautiful. Now and then I observed that, when her arm had stiffened while elevated, she could just afterwards bring it down a very little.

The rigidity of any part, even when it was in accordance with her will, as when she had grasped my hand from affection and was not only unable, but disinclined, to relax it, could be at once dissipated by my breathing upon it; and we find that when other patients voluntarily grasp our hand and we cannot force their fingers open, a little breathing upon these produces their relaxation in spite of the patient's efforts, equally as when there is involuntary rigidity. Noticing that, in whatever strange position her arms and hands were fixed, I thus set them at liberty so that they fell into one which was natural and easy, she attempted to effect this by breathing upon them herself, and invariably succeeded just as well as myself. It was impossible not to laugh at seeing her stooping and stretching her head as far as she could to breathe

* See Vol. II., p. 61.

† See Vol. II., p. 63, where is pointed out the still greater appropriateness of the term *congelatio* to rigidity than to catalepsy, to which it is given by medical writers to catalepsy.

upon her hands or arms when these were stiffened in a position she thought ridiculous; and to witness her joy at being a match for me when she had thus succeeded in relaxing them and moving them into an agreeable position: and then by our touching her again with the point of the finger she would be instigated in spite of herself to catch at me, or move her hand and arm away if touched by a stranger, and again instantly stiffen in a new attitude. She at last found it was not necessary to breathe on the whole extremity, but sufficient to breathe on any part of it, and therefore turned, lowered, and pushed forward her head, and extended her lips, so as to breathe on her shoulder, when her hands or arms were stiffened. I never shall forget the scenes of mirth that all this produced to those who witnessed them. I was a match for her, however, and by long passes down the sides of her neck stiffened her head, and thus prevented her getting her head near enough to her shoulder to breathe upon it. She would then blow towards it out of one corner of her mouth as her head was fixed straight; in vain, however, unless after a length of time she could depress her head a little. But by stiffening and locking her jaw also, I completely frustrated her.—I have not yet met with another patient who could succeed as she did. I have requested the rest of them when I had stiffened any part to breathe upon it in order to relax it; nay, other patients learning this in her case, have of their own accord breathed upon their own stiffened arms and hands,—but all completely in vain.

I could of course remove the rigidity by transverse passes, pointing, or contact. But the contact of a stranger could not be shewn to have the effect, because the emotion of displeasure enabled her instantly to withdraw the part touched; and if I touched her hand and she continued to grasp mine, her emotion of pleasure in grasping my hand surpassed its relaxing power and enabled her to preserve a rigid grasp. The superior relaxing power of the breath was shewn by its producing complete relaxation under these circumstances.

She discovered a second mode of frustrating me when I attempted something she did not like. If her joy was great on finding that she could relax a stiffened part by breathing, it was no less on her discovering at length that, when she was grasping me, *I could not relax her hand and compel her to let go by my breathing upon it, if she grasped the fore-arm of this hand with her other hand.* This was very curious. However, I soon devised a method of gaining the victory: for I breathed on her hand which was grasping her fore-arm and thus relaxed it, and made it let go its hold; and then I breathed upon her other hand which was grasping mine and at once relaxed it.

Mine was now the joy and her's the vexation. *She also discovered a mode of preventing her arms and hands from growing rigid : and this was to keep them in constant motion.* She, therefore, was seen busily rubbing her hands as she sat, perhaps singing or chattering in high glee at the same time, whenever she could begin this before they stiffened after her going off into the sleep-waking or after I had relaxed them by breathing. For some time we were ignorant of her reason, and supposed her rubbing them was a mere absurd trick : and it was not till we laughed at her about it that she disclosed her discovery of its preventing her arms and hands from stiffening. It was this rubbing that occasioned her aunt to say, "Why, Ellen, you'll wear your hands out ;"—a remark which always vexed her and was always heard by her, though not another syllable that her aunt ever uttered, (and this lady was always with her during the mesmerism,) was heard by her, as far as the closest attention on our parts could observe, however annoying what was said might be presumed to be (pp. 360-1).

After a few weeks, her lower jaw would on some days become spontaneously rigid. This is not an uncommon occurrence. It will occasionally for a time take place and remain, like the closure of the eyes, after the patient wakes : and then may not occur for a long period. It was, as is usual, readily removed by breathing upon it, or holding my fingers upon it, even by pointing towards it close, and by means not mesmeric, as the application of something cold.* I could induce it at any time, just as I could fully stiffen her neck, trunk, or legs, by long passes down its angles,—usually by nine. What is curious, she could stiffen her lower jaw herself under emotion. If by touching over certain cerebral organs I gave her a strong disposition to say something which she greatly disapproved of saying, her only mode of preventing herself was to stiffen her jaw, and make utterance impossible : as when I touched over the organ of Imitation, and in the midst of saying a number of things, all which she repeated rapidly after me, I said something disrespectful of myself or any other person whom she liked ; or when I touched over the organ of the Love of Property, and made her feel dishonourably avaricious, and conversed with her on subjects of property, and she could not resist the mean and dishonourable feeling, but at the very same time condemned it and was ashamed of it. Volition alone could not have locked it. But under emotion, she fearing the effect of her being able to speak and thinking of its locking, the desired rigidity of its closing muscles,—the masseters and temporals, took place.

* See Vol. II., p 61 ; also above, p. 449.

To illustrate this, I may quote what I have said elsewhere. "Under emotion, the action of the heart may be excited or depressed: any one part may grow turgid and red, or shrink and grow pale: and, by thinking voluntarily of circumstances calculated to excite such emotions, we may voluntarily, in this indirect manner, affect the action of involuntary parts; and even without thinking of circumstances affecting ourselves, but by only dwelling on the circumstances of others, —as in reading. Betterton, the actor, when playing Hamlet, could cause his face at once to become bloodless. (*Penny Cyclopaedia*.) Blumenbach says he has seen 'some persons able at any time to produce a spasmodic horripilation of the skin by representing some unpleasant object to their imagination. Others have had the power of exciting local sweat in the hands, &c. (See, for instance, T. Bartholin, *Acta Hafniens.* 1676. vol. iv. p. 194.)'"*

She could not, however, relax her jaw again; either when she made attempts by merely willing, or was under emotion. Droll indeed it was to excite her to say something she did not like, and see her look vexed and her jaw suddenly lock before the words came out of her mouth: and afterwards to see her sit with it closed, after the disposition to say what she did not like was over, and she would have been glad to chat again but was compelled to refrain from even good words. And then I would relax it for her, and she would laugh heartily and chat merrily as usual. Of course after a length of time spontaneous relaxation would have ensued. She always smiled with satisfaction, and seemed to chuckle, when she had thus frustrated me in my attempt to make her say something she did not like: and if I relaxed her jaw and made the same attempt again by exciting the particular organs and saying certain things, she instantly fixed her jaw again as the words were coming out of her mouth.—Mesmerised water applied to her hands greatly increased the force of their rigidity.

Common sensibility or touch was abolished as to pain from mechanical injury. She felt no pain from mechanical causes, pinching, pricking, &c., nor was she very sensible of temperature. She felt no coldness from cold objects: nor warmth from warm ones: but a *hot* poker brought close to her hand, gave her a sensation of warmth. She had a sense of contact and resistance. If I pinched her and asked what she felt; her answer was, "I feel you." "But do I hurt you?" "No." "Don't you feel me pinching you?" "No. I feel you; but you do not hurt me." This is a very common

* *Human Physiology*, p. 484-5.

answer in mesmeric insensibility to pain from mechanical causes. Yet I have known her sometimes sensible to pricking, &c., at the tips of the fingers, as Rosina always was; and as another patient of mine, in whom the seats of insensibility are always changing, is not unfrequently.*

She heard unless when her feelings made her impenetrable (p. 360—363). Thus she heard only me, and those whom she supposed to be in the mesmeric state, and after a time Dr. Engledue, and noises supposed by her to be made by us, and one sentence, "Ellen, yo'll wear your hands out," whoever uttered it. If others touched me, still she could not hear them; and she had no means of knowing that they touched me, as she could not open her eyes. But she heard every body and every noise while I touched any part of her. My cockatoo's loudest screams did not affect her in the least, unless I put the point of my finger upon her hand, and then they instantly went through her head. After she had become mesmerisable by Dr. Engledue, and heard him, his touching her had the same effect as mine upon her hearing. Her eyes were never in the least open. I never found her possess taste or smell.

Excitement of the Cerebral Organs. The first time she went into the sleep-waking, I attempted to put a finger over some cerebral organs: but she moved her head away in displeasure; perhaps considering it a liberty, for her sense of propriety was at all times very great. She allowed me, after much kind and earnest request, to touch her head, and I put my finger upon the organs of Veneration. She had been conversing with me, but soon she became silent, and after some time began singing a hymn. I breathed over the organ, and she left off, and had no recollection that she had been singing.

In this particular a change took place after a few days, and she remembered her previous thoughts and acts when a particular organ was no longer excited or even another was excited in its stead.

This variation is very common. Sometimes there is no memory, sometimes imperfect and sometimes perfect memory, of previous excitement of organs: just as when different states occur in sleep-waking, (and changes of state in it are very common,) there may be no recollection of one in another, or there may. There is no rule for these points.

The next day, I touched over Tune, while she was talking, and soon her words were drawled forth in a sing-song manner, which increased to a chant: and without her being aware of

* See my remarks on the remarkable varieties in insensibility, Vol. I., p. 339, 413; Vol. II., p. 209; Vol. III., p. 59, 60.

it. When I asked her why she did so: her reply was, "I don't." "You really do." "No, I don't." "But indeed you do." "Well, I cannot help it if I do." These answers were all chanted. I removed my finger, but the musical ideas had perverted her understanding, and she fancied herself teaching her sister the harp, and went through the whole process of a lesson, rebuking the child for playing false notes, &c.

During her visits, I tried numerous cerebral organs, and nearly all that I tried gave exquisite results. The effects came instantly, but lasted long after my finger was removed. In my patient Mary Ann they last long afterwards also, but do not begin for some time. At length contact with her own finger guided by my hand, nay, contact with any inanimate substance, answered as well as with my finger; my nose or chin had an equal effect. Pointing with even my finger never produced any result. The effect continued about a minute after my finger was withdrawn; but then ceased instantly that I breathed over the organ, as well as if an antagonist organ was touched over.

Miss Abbott's organs could never be excited "by placing the ends of her own fingers upon their seat guided by mine" (p. 70), any more than the rigidity of the hands or arms of her or any other patient upon whom I have yet tried the experiment could be relaxed by the patient's own breath. Her organs were less excitable, so that the difference between true mesmeric influence and mechanical irritation or suggestion was evidenced by the frequently inferior excitement through the latter; and if their excitability happened to be declining, the possibility of exciting them by inanimate substances would lessen much faster than that of exciting them by the fingers: sometimes inanimate substances scarcely excited them at all, while the fingers succeeded well (p. 69, 70). But the excitability of Miss Collins's organs was such that I could discover no difference of effect: yet mere pointing, with no effort at willing, or with the utmost willing, was equally inoperative.

The power of breathing over the organs was such, that, if any one was in a state of high excitement from abundant excitability or conversation, or other external causes not mesmeric, this excitement was at once equally reduced by breathing; and, if the excitement was in only its ordinary degree, it could be equally well brought down to nothing.

The effect of touching over *Tune* was always to bring her utterance first into a sing-song, however fast she was prattling: and at length she left off her conversation and began singing something. When I touched over *Colour*, and asked

what she was thinking of, she always mentioned some circumstance in which colour was concerned,—walking in a garden where there were beautiful flowers—looking at something in which were pictures; and she generally made no allusion to the colours at first, so that I frequently did not comprehend she was thinking of colours till she went on to specify the particulars, and then she always arrived at colours.

The effect of touching over *Veneration* was invariably to give her a very serious look, and cause her to become silent, to answer any question in only a whisper, to lower her head—in fact to give the most perfect expression of humility. In Mary Ann the effect is to bring the palms of the hands flat together and raise them, to cause great seriousness, even sighing, and to make her wish for Sunday and regret the many opportunities of religious improvement she has lost; but she never bows her head. Others fall on their knees. I cannot doubt that the primitive function of this organ is humility and a disposition to reverence superiority.

Whenever I touched over Dr. Spurzheim's alleged organ of *Hope*, the same effects exactly came as from touching over *Veneration*: yet I tried very often and very long at a time. At length I spoke of it in her presence as the organ of *Hope*, so that if suggestion could have had anything to do with the original excitement of her other organs, which I believed it had not, *Hope* might be excited in this way; but no such manifestation ever came. I have not yet seen any proofs of this organ by observation of development; nor ever seen *Hope* excited by touching over this part; nor read of the occurrence when it was certain that due care had been taken to avoid suggestion by selecting a person totally ignorant of cerebral physiology and by rigidly preventing conversation which could enlighten him. *Hope*, I suppose, may be called the belief, or disposition to believe, that what we desire will take place. Some persons are prone to this belief, others not. But this does not shew that *Hope* is a distinct faculty. Gall denied the existence of such a faculty. "In the passions," says he, "the organs are active, excited in their fundamental functions; in the affections, on the contrary, the organs are passive, modified, seized in a particular manner, agreeable or disagreeable. Shame, fear, anguish, sorrow, despair, jealousy, anger, joy, ecstasy, &c., are involuntary sensations, passive seizures, either of only one nervous system, of one organ, or of the whole brain. There consequently can be no peculiar organs for joy, for sorrow, for despair, or discouragement, for *hope*, nor for any affection whatever."* I have always

* *Fonctions du Cerveau*, t. vi., p. 431, &c.

noticed hope to be in proportion to the strength of a desire, to the general ardour of temperament, and to the disposition to look at all things present as well as past in a favourable point of view, &c. The large size of individual organs of desire on the one hand, and the smallness of the organs of reflection and of circumspection on the other,—the relative proportions and positive strength of all these, will affect it. When a desire is strong and knowledge, intellect, or circumspection, poor, the improbability of success is not perceived: and again, strength of intellect or knowledge may shew success to be probable, when ignorance or poor intellect cannot perceive the probability. A mother desiring the life of her child and ignorant of medicine, may believe it will recover, when the physician, not so anxious but well-informed, has no hope. Yet when the physician's child is ill, he, desiring its life, may find his knowledge of too little avail in preventing him from indulging in unfounded hope. Even self-esteem may encourage the feeling of hope: and the faculty of courage also. I am inclined therefore to consider it a mode of action or state, and not a distinct faculty: and especially when I observe that those who are inclined the most to hope, that is, to look upon the future favourably, are equally disposed to look upon the present favourably. The latter circumstance cannot be hope or the result of a particular organ, but must be a mode of feeling. It is remarkable that Dr. Spurzheim does not inform us how he discovered this organ, or give us a single example of it. He seems to have imagined its existence, and then considered where it must lie. This was his way. But Gall condescends to relate the origin of his several discoveries, and gives us abundant positive and negative instances in proof.* I may

* "Dr. Spurzheim, in his fondness for changing his names, his arrangement, and his numbering of the organs, introduced confusion without advancing knowledge. To prove his speculative spirit, I may mention that, instead of giving the origin of any of his asserted discoveries, as Gall did, and adding a host of examples, he tells us, in regard to the organ of Inhabitiveness, only that a gentleman much attached to his house had a particular spot of his head hotter than any other; and in regard to the organs of Hope, Marvellousness, Conscientiousness, Size, Weight, Order, Time, he neither tells how he discovered them, nor adduces a single proof. Gall was too much of a philosopher to wish others to examine a mere assertion.

"But, in regard to all the organs discovered by Gall, except that of Colour. Dr. S. gives the circumstances which led to the discovery, and a certain number of individual facts; though but a very small number of those related by Gall. 'He has changed the names,' says Gall, 'but treated the organs according to my principles; yet in so hasty and feeble a manner, that this part of my doctrine would be deplorable, if it were not established on a better foundation.'" (l. c. 4to. vol. iii. Preface; a part which every body should read, for its exposure and demolition of Dr. S.'s unjust and weak attempts.) His own alleged discoveries may be real; but the remarkable

remark that hope is denied by Dr. Spurzheim and Mr. Combe to exist in brutes! Surely when my dog bounds with joy at seeing its master take his hat for a walk, or a spaniel accustomed to a lump of sugar at hearing the tea things rattle, they both are full of hope; the former that he shall be taken out of doors, and the latter that he shall have his sugar.

As soon as *Self-esteem* was touched over, however amiable and cheerful she was, a change came over her countenance, she looked important, spoke decidedly and scornfully, raised her head and whole body, and uttered the most self-sufficient and contemptuous opinions: addressed me and others whom she could hear as "Sir" and "Madam:" would allow of no contradiction: was as good as any body—if she was short, she was none the worse for that—was as clever as you, perhaps a good deal cleverer: was not ill-looking, was in fact, shaking her head up and down, very well looking; it would be well if others were as handsome. The scorn of her lips, the movements of her head, her utterance, were such, that when one of the most distinguished writers of the day beheld the manifestation of the excitement of this faculty, as well as of the rest, he turned round to his chaplain and asked, as so many other rational people have done on similar occasions, "Can this be called acting? What finished actor could equal this? to suppose her acting would be more difficult than to admit the reality and naturalness of what we witness." Such sights are familiar to mesmerisers, in patients, even children, who have no idea of the cerebral organs, and but little of mesmerism. No one who ever saw the Okeys will forget their manifestations of various faculties, though not through the local mesmerisation of distinct cerebral organs. Mr. Wakley was rivetted and laughed till he almost cracked his sides: yet finding that nearly all medical men were against the truth of mesmerism, and that he was inundated with letters on the subject from medical men, nineteen out of twenty being against it, as he told me, and nineteen men buying more *Lancets* than one, he deliberately made up his mind, long before he saw them I have no doubt,* to call the poor children

circumstance I have mentioned tends to create a suspicion that he reasoned himself into a belief of certain faculties, and gave them localities according to their nature; having learnt from Gall where 'perceptive' and where 'reflective faculties,' where 'sentiments' and where 'propensities,' to use his own language, reside. Localisation, after Gall's discoveries, was easy, especially as Gall had not mapped out the whole head, but left blanks where he possessed no facts."—*Human Physiology*, p. 379.

* See my Farewell Letter to the Students of University College; quoted in my *Numerous Cases of Surgical Operations without pain in the Mesmeric State*, p. 84.

impostors, and has the effrontery to do so still, though he every day hears from more and more persons, to his daily annoyance, that mesmerism, as he has always well known, is true; and feels himself more and more nearly overpowered by the public voice.

If accused of being proud, while the organs were influenced, she justified it, for she "had plenty to be proud of." "What?" "Every thing, Sir." If I pointed out that she was taught differently by her religion, "Never you mind—judge for yourself; leave me to judge for myself. Do you think that I am not capable of judging? Indeed! a pretty thing to be sure! If people are not proud, they are trampled upon; I've a right to be proud." When the influence was over, I enquired why she had been so proud. Her answer was that I was the cause of it, though she did not know how; and that she could not help it.

The feeling of pride and of independence were equally excited whatever part of the organ I touched over: but the highest portions gave the greatest manifestation. Touching lower, over Inhabitativeness or Concentrativeness, as it is also called, had no obvious effect, till I came near the organ of Self-esteem, and then pride was manifested.

Touching over the organ of *Vanity*, or the love of distinction, produced a very different effect. She was perfectly amiable, though self-satisfied, cheerful, smiling, and speaking kindly, fiddling with and arranging different portions of her dress. Those who have visited insane-houses must have marked the difference between the proud patients, who walk in silence with their heads erect, taking no notice of you, or replying scornfully, and the happy, chattering, good-natured, vain patients, ornamented most preposterously; and, if not ignorant of cerebral physiology, must have noticed the usually large size of the organ of Self-esteem in the former, and of the organ of Desire of Distinction in the latter. The bearing of my patient resembled most perfectly that of these two sets of patients just as I touched over the one organ or the other.

The first time (April 24th) that I touched over *Love of Property*, she became silent, and would reply to nothing. The next day, she apologized for this in her sleep-waking, and said that she could not though she much wished it, and feared I must think she behaved ill. I could not comprehend how this effect resulted. The next time I did this (April 26th), she put her hands into her pocket, and fiddled about in it. When asked what she was about, she replied that she was trying to find if she had all her things right in it.

On the 27th I touched over Love of Property* again, while we were chatting; she hung down her head and was silent, and, on my urging her to speak, her jaw closed. On the 28th she apologized to me for not having spoken, but would not explain why, and hung down her head. On the 29th I touched over Love of Property again, and she became silent. I urged her to speak, but her jaw closed, as on the 27th.

From the excellence of her organization and education she felt that cheating and stealing were wrong, and was heartily ashamed of defending them or disclosing her desire to commit them, and, therefore, when under the artificial excitement of the organs, and led into conversation upon her thoughts, she was most anxious to conceal them, and was silent when I questioned her. On the 30th I again touched over Love of Property, and she again became silent. I then touched over the organ of Friendship at the same time, and she explained to me in deep sorrow why she had been silent the other day:—she had thoughts of contriving to get a piano for £25, for which £60 were asked, and that price she knew to be below its value, but she was nevertheless desirous of obtaining the instrument at that price, and had hoped she should succeed. If not under the counteracting influence of friendship, which made her willing to disclose her avaricious thoughts and, even while ashamed of them, to defend them when long-continued contact of the finger greatly excited acquisitiveness, she contrived to bring on a rigidity of her jaw and thus disable herself, at the same time hanging down her head in shame. Indeed we tried so often and so plagued her that she was delighted at frustrating us, and she would then, as soon as she had locked her jaw, being speechless, shake her head up and down in triumph over our endeavours to get her to tell her thoughts, her joy at doing us overpowering her shame at being rapacious. At length the very moment I spoke of her rapacity, even if I said only piano, jew, Moses, or money, whether my finger was over the organ of Property or not, her jaw closed. I could now understand why the first day (24th) that I touched over the organ of Property she became silent. I afterwards forgot the circumstance till I was looking over my notes for the publication of the case, or I might have learnt the reason by touching over Friendship and asking her. I have no doubt that, being very anxious at the time to purchase the piano, which was above her mark, she then felt some mean or dishonest desires

* I adopt the established and convenient custom of using the same expression for the organ as for the faculty. The context always makes the meaning intelligible.

to obtain it at her price, and condemned herself for them and was ashamed to mention them.

Afterwards, as the organ became more excitable and the finger was held longer on it, she was not contented with looking after her own, and thinking of overreaching, but endeavoured to possess herself of what belonged to others. Her hand did not go into her pocket, but began moving. Her fingers began to move about a little, and then slid near me; and nearer; and then she felt for my pockets, or my fingers, and in the most cunning manner took off my ring, or took something out of my pockets, looking greedy and rapacious, craftily talking to me sometimes with a voice of unconcern on some other subject, or so absorbed in the attempt as to be silent, looking greedy, sometimes smiling and shrugging her shoulders when she had nearly or quite abstracted something. Oh how her "itching palm," her every look, gesture, and intonation, surpassed all acting! If asked what she was doing or had done, she "was doing or had done nothing," speaking as innocently as the purest angel. If accused, she at first gently, and at last resolutely denied the charge; and if I turned the conversation upon theft, she more or less justified it, by saying that people must look after their own interest.—The words covetiveness and acquisitiveness I never thought to be proper appellations of the faculty. It surely gives a desire to retain as well as to acquire, and Gall's name for it,—sense or love of property, is evidently the more correct. What other faculty can make people miserly? If some thieves do give away what they have stolen, this is from the action of some stronger feeling; or, if they are careless about retaining what they have stolen, this is but a modification of the action of the organ, its impulse being expended at once. Even Dr. Spurzheim, after insisting upon calling it the organ of acquisitiveness, inconsistently finishes in these words: "This faculty prompts to say *mine*." This must be the fundamental nature of it, the disposition to acquire being a stronger excitement of it than to retain.*

On my touching over the organ of *Love of Offspring*, she used to begin to sway a very little, and then really rocked, and, placing her arms as if holding a baby, began to hum a tune and talk of, and even to, "the dear baby,"—an insane delusion being absolutely produced that she was nursing her brother's child; and if I slapped her hands or arms, of course gently, and said I hated children and would injure the little

* I must remark that the point at which the Love of Property was excited by the finger was that marked by Gall, and not that new extent given to the organ by Dr. Spurzheim.

wretch, she was agonized, and defended the imaginary being by stooping over her lap, turning round from me, and ordering me not to touch it.

Nothing of this kind occurred if I touched over *Friendship*. She then loved me and was all kindness to me; squeezing my hand and speaking in the most sisterly or filial, affectionate tone and language.

The finger on the organ of the *Disposition to Violence* (Destructiveness) instantly made her cross, and, if I still held it upon the part, violent, saying she hated me, till at length she began to strike me, and was absolutely ferocious. I have no doubt that by the continued application of the finger, some persons might be brought to commit murder.

Touching over *Courage* or *Combateness* had no marked effect the first time; but afterwards a degree of violence ensued; not, however, to be compared with that from touching over Destructiveness.

On the 24th of April, I put my finger on *Alimentiveness*, as I thought; but no effect came. I was talking to her and others. After a time, I looked and found my finger was too high. I placed it on the proper spot, and instantly she began munching; and, in answer to me, said she was eating an apple,—an absolute delusion being induced by the force of the excitement, just as had been the case with the Love of Offspring: and so perfect was the delusion, that she picked the imaginary pips and core from her teeth, and at length threw herself back, saying she was full and had eaten enough. When we asked her where and how she got the apples, she replied that they had been sent her by her mother: and her aunt informed me that her mother had just sent her up a bushel. This circumstance no doubt directed the alimentary delusion to apples, and rendered it more intense. The next day, on my repeating the experiment, she fancied she was eating apples and plum-cake, one having been sent from the country with the apples. If I touched over Violence while Alimentiveness was excited, she no longer ate quietly, but voraciously, like a very hungry carnivorous animal: it was no longer to *essen* but to *fressen*, as the Germans distinguish. *Tanquam bestia*, was the expression of the spiritual peer above mentioned; for our conversation was in Latin to avoid the possibility of her understanding it. At length, she sometimes under the excitement of Alimentiveness would fancy she was eating biscuits; and, when she was satiated, would shake the crumbs from her lap. We could make her believe she was eating or drinking anything, by telling her that she was. We gave her water, telling her it was wine, and she mistook

it for wine and relished it amazingly. Nay, I gave her essence of wormwood and told her it was wine: it was equally relished. After I had taken my finger off the organ, she no longer tasted it as wine, and yet she did not taste its bitterness. I woke her immediately, and she had a very bitter taste, as she informed me the next day in her sleep, though at the time, with her habitual lady-like reserve towards me in her waking state, she did not mention it. One day, while my finger was on the organ, I gave her a flat piece of aloes, telling her it was cake; and she mistook it for cake, and munched and munched it with delight, so that a very sharp diarrhœa was the consequence, which she could not account for. I have, on the other hand, under the excitement of the organ, given her water and made her believe it was wormwood; and then made her take the same water for brandy.

I find in my notes that on the 6th of May a bun was given her, which she declined, having lost her appetite; but the moment I touched over Alimentiveness, she began devouring it with delight.* Her taste was delusion (p. 453).

On the 29th of April, I first placed my finger on the organ of Imitation, and she immediately, instead of answering questions and continuing conversation, repeated every word I said. As long as my finger was over the organ she, from my contact with her, heard everything spoken by others, and repeated what others said equally with what I said. Nay, if I or others made a noise of any kind, as in coughing, whistling, clapping the hands, knocking, she did the same as well as she could. But having no occult power of any sort, and her eyes being always perfectly closed, she never imitated grimaces or any noiseless act of others. The action of the faculty of imitation was always most amusing. However animated she was

* Gall considered that there must be a cerebral organ for the desire of taking food (*Fonctions du Cerveau*, t. iv., p. 63), but he had not discovered its situation, though he had left the spot unappropriated which is now considered to be its seat. This Dr. Hoppe ascertained in 1823-4 (*Edinburgh Phrenological Journal*, No. V., VII.), and says he admits the faculty as distinct and cerebral, though without mentioning that Gall had already done the same. Dr. Spurzheim gave the discovery to a Mr. Crook, most unjustly and without assigning a shadow of reason. In truth, the latter has not the shadow of a claim. Mr. Crook never published or uttered a word upon the subject till many months after Dr. Hoppe's first paper was printed in the *Edinburgh Phrenological Journal*: in fact, six weeks after the second paper had been read in the Edinburgh Society and three months after its date, he astonished us by announcing his discovery in the London Phrenological Society, 30th March, 1825, and he read a paper upon it on the 8th of April. After a discovery has been announced to the public, it is preposterous for any one to attempt to found a claim by saying he had made the same discovery, though he had not mentioned it to his scientific brethren. Any one can do this on every occasion of the announcement of a discovery.

and interested in conversation, as soon as I placed the point of my finger over the organ, she no longer took part in it, but merely repeated what I said, though in opposition to her own side of an argument or statement. When we made a noise too difficult for her, or spoke Greek or any language she did not understand, as when one of the four young Hindoos now at University College spoke Hindostanee, she came as near it as possible; but, having no occult power or cerebral sympathy, she was situated like any ordinary person determined to mimic another. If I enquired why she mimicked, all I could obtain was a repetition of my question—"Why do you mimic me, Ellen?" But, after my finger was removed, she allowed she mimicked, and protested, as in the case, formerly mentioned, of pride, she could not help it—"You made me, but I cannot tell how."

If I said anything she disliked or disapproved, she could not by any effort of will prevent herself from repeating it; but if it seemed too bad to her, her jaw became locked, exactly as when she was absolutely ashamed of disclosing anything to me and yet strongly impelled. If I said, "It's a fine day, I'm a fool, I'm a rogue, I should like to kill a few hundred people;" she repeated all this rapidly—"It's a fine day, I'm a fool, I'm a rogue"—perhaps laughing heartily while saying these things as rapidly as I did: but if I said, "Dr. Elliotson's a fool, Dr. Elliotson's a rogue"—her jaw instantly locked. If again I said, "Dr. Engledue's tall and well grown, Dr. Elliotson's stumpy;" she would say, "Dr. Engledue's tall and well grown"—and then her jaw locked, and she rendered farther utterance impossible to herself. If, while compelling her to imitate, I uttered humble sentiments and in a humble tone and placed a second finger on Pride as well as on Imitation, she repeated my humble words, but in the proudest tone, as if they were haughty sentiments: and, if I uttered haughty sentiments with a second finger on Veneration or Humility, she repeated my proud expressions in the most lowly and humble manner.

If I touched over the organ of the faculty called by Gall, *Wit*, *Causticity*, &c., and by Dr. Spurzheim, *Mirthfulness*, she instantly began to laugh, and laughed more and more the longer my finger remained upon it: and when I asked her the reason, she always mentioned something that struck her as droll. *Mirthfulness* is hardly a proper term, because there may be mirth in endless circumstances. Men may be merry when they succeed or are gratified in any way; the savage, when he at length has caught his foe, laughs aloud and capers with joy; children dance and shout with joy; the kitten is

merry; the cricket has its "cheerful mirth;" and the highest wit, although it excites a smile and gives a peculiar relish, may be far from exciting mirth. The faculty of the organ appears to me the sense of drollery and ludicrousness: and there is wit when this is united with intellect. According to the intellect of the individual will be the intellectuality of his wit; and the wit of an unintellectual person must be unintellectual. *Punch* caricatured me, Oct. 21, 1843, exciting the cerebral organs. This was all very well, though the article was too poor to have procured admission into *Punch* as it now is. The effect of exciting the organ of Wit, among others, in Captain Valiant's nurse, was quoted. The writer doubts "whether the critical ear of Moore, or Sydney or Horace Smith, would recognize the keen tone of wit" in what she said. I am quite sure they would not. But she was only a poor nurse, and her intellect and education did not enable her *feeling* of drollery to give rise to intellectual sallies. It was the best wit that *her* sense of drollery could excite.

When I touched over what Dr. Spurzheim calls the organ of Conscientiousness or *Justice*, there was no marked manifestation, because her habitual sentiments were strictly just; nor when I touched over *Benevolence*, because she was habitually benevolent. But the faculties of these organs shone forth brilliantly when the organ of Property was already in mesmeric excitement. When she was already bent upon thieving, so that she had pulled my ring off my finger or was quietly rifling my pockets, her countenance beaming with delight and expressing at the same time the utmost cunning, if I touched over Benevolence, she would instantly look sorrowful, and not merely desist, but begin anxiously to replace the stolen articles: and, on being asked why, her invariable reply was, "It would be so *unkind* to take anything from another person—it would be wrong to *injure* any one." If, instead of Benevolence, I touched over Veneration, the same effects resulted, but her invariable reply was, "It would be *sinful*—we are *forbidden* to steal." If, instead of these, I touched over Conscientiousness, she also instantly looked sorrowful and anxiously restored what she had stolen, but the reason she invariably gave was, it would be wrong to take what *belongs* to another—it would be *unjust*. While keeping one finger upon Acquisitiveness, to put a second on one of these, and at once see her sorrowfully and anxiously make restitution, giving as her reason that it was unkind, unjust, or sinful to steal, accordingly as one coronal organ or another was touched over; and to see her cunningly and

anxiously stealing again as soon as none of them was touched over, and hear her stoutly justify theft if accused of it, and then again be brought to penitence and condemnation of it as unjust, unkind, sinful, in succession and varied succession—was a scene I am in vain attempting to describe. The exquisiteness of all this was heightened by my acting at the same time upon Mary Ann, whose cerebral organs display the same capabilities and send forth the same manifestations. I would seat them side by side, and excite the organ of Property in both. They both became thorough thieves; plotted together how they could in concert best filch. The sight of their twisting fingers, their whispering consultation, their anxious, cunning, and rapacious mouths and breathing, their joy at the probability of success attending their stratagem—was indeed a spectacle. Then I would touch Benevolence, or Veneration, or Justice in one, and she would at once become good and sorrowful, decline the scheme, condemn it as unkind, unjust, or wicked, while the other would persist and laugh at these considerations, impenetrable to them, as firmly bent upon her depraved views as the other was certain of their depravity and as firmly determined to act in opposition to them. And then I could at once change their characters, and make the thief the good character, and her who had been so seriously enforcing what was right become the thief.

The same alternate variation of character in reference to Pride could be induced. I sometimes made one haughty and the other humble: then reversed their characters, and she who had reproved the other for pride, now justified her own pride, and was rebuked with all humility by her who just before was haughty.

If I touched over Friendship, she sorrowfully restored my articles, but the reason given was that she would not steal from *me*. There was no reason of general benevolence. If Pride and Property were touched over together, she justified stealing; but would "steal nothing which was not worth stealing." If I touched over *Cautiousness*, she also desisted from her theft, but not at all sorrowfully; and the reason alleged always was, "lest she should be detected." She was naturally cautious, equally prudent as good, and a manifestation of the mesmeric excitement of the organ was therefore not satisfactory, unless in antagonism to another excited organ. If I touched over *Cautiousness* before she began to steal, she shewed the desire, but hesitated, shook her head and refrained.

The facts in this patient and Mary Ann respecting the organ of Justice are the first which satisfied me of Dr. Spurzheim's correctness in assigning the situation of this organ.

I had always been in uncertainty with regard to it. For in the heads of all the unjust criminals I had examined, there was a deficiency not only at this spot, but along the coronal surface forwards from it, so that the head was keel-shaped; and in truly just persons the rest of the coronal surface forwards from it was equally developed as at this spot. I could therefore not come to any conclusion respecting it, and said in my *Physiology*, p. 380, "It is possible that Dr. Spurzheim discovered the organs of three faculties, which Gall believed to exist,—Time, Order, and Conscientiousness." I must differ from Gall, both by reasoning and observation of head, who regards benevolence as only a higher degree of justice; and therefore hypothetically assigns to both the same organ. At the same time I must differ from Dr. Spurzheim in regarding conscientiousness and justice as the same. For conscientiousness may relate to matters in which justice is not concerned. The *social* organs of Love of Offspring, Friendship, Benevolence, Veneration, when they have been disregarded in those who have them large, feel reproaches of conscience, no less than these are felt when justice has been disregarded by those who have its organs large. Conscientiousness relates no more to justice than to friendship, veneration, &c. The proper term, I conceive, is Justice, honesty, fairness, and surely this must depend upon a particular sense or faculty.

When under the excitement of other unsocial, selfish organs than Love of Property, as the Disposition to Violence and Self-esteem, contact over Benevolence, Veneration, or Justice counteracted her fury and haughtiness, and she condemned these feelings as unkind, sinful or unjust, exactly as the organs were respectively touched over.

From the excellence of her character, the artificial excitement of *one* of these coronal, high moral, organs was found by Dr. Engledue to counteract the combined artificial excitement of *two* and even *three* unsocial organs. In less happily organized and educated persons, such results might probably not have taken place. It might have counteracted but two, but one, or there might have been a necessity to excite two coronal organs to restrain even one, or to excite even three to restrain even one, or counteraction might have been impossible in a very bad case, but to this I cannot speak.

The modification of the excitement of the organ of Music was very pretty. If she was humming or singing a lively tune or song, and I placed another finger on Veneration, she changed it instantly to a sacred melody: if I removed this to Violence or Pride, she changed the sacred melody instantly to a fierce or martial air: if I now removed it to Wit, she

changed to a right merry tune: and I made her go backwards and forwards in all sorts of successions. If she was playing at the piano, she was made to change her playing just as I had made her change her humming or singing: and her thumping of the keys under the excitement of the organ of Violence to a martial air was unmerciful. If the experiment happened to be made on a Sunday, I could not by touching over Wit, while touching over Music, excite her to hum a merry tune: she smiled, but locked her jaw. Yet I could excite her to an impetuous tune by touching over the organ of Violence or Pride, and make her violent or proud. This was in exact accordance with the world at large; who would not break the sabbath by reading any other than a religious book or playing or listening to any other than sacred music, yet will tell fibs, be proud and selfish, and get into a passion, as readily as on other days.

I one day excited the organ of Violence powerfully, and at the same time that of the Love of Offspring; and her violence was directed against a baby—she would “mix arsenic with its bread and butter, and see how it would lick it down.” How frequently did I, from looking another way, still thinking of the result, or from looking towards other persons and conversing with them, and she perhaps having moved her head, place my finger, or after placing it right slip it, upon a different organ from that which I intended; and the effect I desired and expected came not, but another which I did not desire: and then I found my error, or it was pointed out by Dr. Engledue who was watching us, and rectified the position of my finger, and the proper effect came. The point of my finger having, without my knowledge, slipped from Self-esteem to Friendship; from Love of Property to Alimentiveness, &c., &c., &c.

This case afforded no support to the assertions of one in the mesmeric state, that certain portions of the cerebellum are for common sensation, sense of temperature, muscular strength, muscular action, &c., &c.

At page 73 I said, that the subject of these cerebellar organs required much more investigation. Over whatever part of the cerebellum I laid the point of my finger, universal sensibility of her surface returned as long as my finger was there,—she became sensible of mechanical injury and of temperature; and no effect in regard to her muscles took place over whatever part of the cerebellum I placed my finger. These experiments were repeated with the same results till I was tired; and I have lately tried in vain to prove the alleged cerebellar organs upon others whose various cerebral

organs can be affected. The cerebellum has been considered by some physiologists to be particularly concerned with sensation and by others with motion: and Gall did not wish to deny that it might have other functions than those which he discovered.* Mr. Gardiner thought that a mesmeric patient had discovered to him organs in the fore-part of the side of the head, relating to the five senses, &c. I made some experiments at his request upon Rosina. At first a shadow of probability was given to the opinion, but perseverance in patient investigation proved the whole to be groundless. I have never yet known a discovery in science made by a sleepwaker. Gall remarks that, "unfortunately scientific discoveries still have to be made by the long and laborious method of experience, notwithstanding the magnetized see all their internal structure in the clearest manner, and magnetism has been practised so long."†

Nearly a year ago, I said, (p. 74,) "The facts of the separate action of the two halves of the brain, will, I am persuaded, be found common." The present patient exhibited these striking facts. If I placed my finger on the Pride of the right side, and another on the Attachment of the left, she scornfully and invincibly repelled my hand which endeavoured to touch her right hand, and seized and squeezed it firmly with her left: and the reverse occurred as soon as I reversed the application of my fingers over her cerebral organs. The description of such phenomena was given in the second volume, at p. 225, &c.; and in the present, at p. 74.

Usually the excitement of the organ of one side was communicated to that on the other side; and breathing on one reduced the excitement of both, if the finger was removed from both. The excitement of the organ of one side might of course be prevented from extending to the other, if, while the finger was upon it, the other were breathed upon. For instance, if I touched over one organ of Imitation, she usually imitated me wherever I stood; but if I breathed upon the other, she would imitate me only when I stood on the same side with the former, taking no notice when I stood on the same side with the latter. When one Imitation only was touched over, and the other not breathed upon, she sometimes imitated noises only made by a person standing on that side of her. The effect was always stronger, if both organs of a faculty were touched over: and once or twice there was so little susceptibility, that no effect came till both were touched over. If,

* *Fonctions du Cerveau*, t. iii., p. 385, &c.

† *Anatomie et Physiologie du Système Nerveux*, vol. 135, &c., &c.

for instance, I touched over only one organ of Love of Property, she often did not attempt to steal, but would talk of nothing but acquiring property, and justified theft by all sorts of arguments.

Her left cerebral organs were more susceptible than the right. In Rosina the right were the more susceptible.*

It is nearly seven years ago since I found that it was possible to mesmerise only one half of the brain.† Subsequently I had a patient—the youth alluded to on former occasions‡—whom I could send to sleep in one half of his brain only, by putting my hand upon one temple and pointing and looking at the eye of the same side only. This eye would close, and he could not open it by any effort, while the other remained open; and the arm and leg of that side felt benumbed and heavy, the same side of his head felt benumbed, and his faculties were somewhat less active. One day, after Miss C. had been awakened to go home, Dr. Engledue made some passes down only one side of her face. She fell into a half-waking cross state, stood still, staring, moving her parasol about, and refusing to leave the house, though it was the proper time. It was necessary to mesmerise the other also, and produce full sleep-waking, before she could be awakened into her ordinary state. On another day, Dr. Engledue made passes down before one side of her face, and I down the other. She went to sleep; but could not be awakened by either of us alone,—each had to wake the side he had sent to sleep. If only one made downward passes in the sleep so induced, he brought her into relation with himself only, annulled the joint effect, and could wake her. If we tried to wake, each the side which the other had sent to sleep, the half-waking cross state was induced: and one of us had to mesmerise her again to sleep and then awake her afresh; she could not be awakened by each trying to awake the side that he had mesmerised. When both mesmerised one side, neither alone could wake her on this side, nor both together on the other side. If either alone now made downward passes, he got her into relation with himself, and could wake her.

Occasionally she fell into a dreamy state, and mistook the time, place and persons; just as Miss Abbott at first sometimes (p. 64) and Rosina§ always did. But she was always brought out of it into her ordinary sleep-waking immediately by my breathing on any part of her, as her hand or face. I succeeded if I breathed on covered parts, for the

* Vol. II., p. 228.

† Vol. I., p. 327-8.

‡ Vol. II., p. 53, 215. Vol. III., p. 53.

§ Vol. II., p. 219.

breath penetrated, but not immediately; one breathing on the bare hand succeeded, but two were required through her stocking. It was not unusual for her to mistake me or any one she heard for her sister Fanny or brother Thomas, and she would even fancy, when we were silent, that she heard them talking to her, and would hold a conversation with the one or the other,—being in what may be called a waking dream in the sleep-waking state. And how exactly analogous is this to that form of insanity in which the patient wide awake, having his cerebral organs excited from within, mistakes all around him! Soon after discontinuing to breathe on or touch her, she would sometimes relapse, and, on my addressing her as if I were her brother or sister, mistake me again; and, if Dr. Engledue also spoke to her, discover no difference in our voices, but mistake both for her brother or sister (see p. 64). Touching had no such effect as breathing; unless I touched over Gall's organ of the *Sense of Persons*, a designation which Dr. Spurzheim changed to *Form*, and then she recovered from her mistake and recognized those she heard. Dr. Engledue discovered this, but intended to touch Dr. Spurzheim's organ of *Individuality*, and thought he had. But we found it was the organ of the *Sense of Persons*, and touching over any part of this, but touching over this only, produced the result; and the result was constant and instantaneous. Downward passes before her face also recovered her from this dreamy state.

She had too much integrity to desire gratification by deceiving me, and candidly replied to my enquiry respecting her knowledge of cerebral organology, that she knew the situation of four organs—*Benevolence*, *Veneration*, *Tune* and *Language*; but was unacquainted with those of *Colour*, *Imitation*, *Self-esteem*, *Friendship*, &c. The latter she believed was at the back of the head, but did not know where, and supposed it and *Amativeness* were the same: the situation of *Tune* and *Number* she confounded.

The oftener I reflect upon it, the more splendid appears to me the discovery made in England accidentally by Mr. Mansfield, in the University of Cambridge, in 1841, that the distinct cerebral organs, the knowledge of which distinctness we owe to the mighty genius and immense labours of Gall, can be excited by locally applied mesmeric means. Dr. Collyer had also, about two years before, in 1839, accidentally stumbled upon the same fact, but had not followed it up; and indeed doubted and positively denied the fact, and still denied it

nearly two years subsequently to its having been observed, though others in America prosecuted the subject after Dr. Collyer's observation. Mr. Mansfield followed up his discovery, and immediately announced it to his friends.*

In 1839 I discovered, and not accidentally, but after reflection, that half the brain might be mesmerised;† but I went no farther, and never thought of ascertaining whether I could mesmerise distinct cerebral organs, as well as half the mass of brain. After others had made this discovery, I discovered that I could mesmerise one organ only of each pair if I chose.‡

The mechanism of human nature is thus laid open to our view by the joint knowledge of cerebral physiology and mesmerism, and the medical profession know it not!

How amusing is it to watch the conduct of a man with a large or a temporarily excited organ of Love of Property or of Self-esteem or Destructiveness, and see that he is the sport of an excited condition of a certain portion of brain, just as really as when we place our fingers upon the organ of Property or Pride in the sleep-waker. To see him blind to considerations of friendship, justice, philosophical truth, and common sense: justifying himself to himself, and absolutely denying all he would insist upon when the case is not his own, but another's.

Great light is thrown upon insanity by the fact of the intense excitement of a propensity giving rise to a delusion—as when, by our exciting Alimentiveness, Miss C. fancied she was eating something nice; or, by exciting Love of Offspring, she fancied she was nursing her brother's baby. In our ordinary waking state, the occurrence of a strong desire gives rise to no delusion, nor did it in her. But in ordinary sleep, the occurrence of any desire often gives rise to a delusion—a dream: nay, an impression upon any external sense, as a noise, or the contact of anything disagreeable, or an uneasy position, will occasion a delusion—a dream: and insanity is often so much a dreamy state, that many mad people remind their medical attendants of dreamers.§ For dreaming is somewhat allied to insanity; and, when we do not drop off to sleep or wake from sleep suddenly, but pass gradually from either state into the other, we often experience a short delirium, being partly awake, though we call it dreaming. Sleep-waking, however rational, still is different from the

* Vol. I., p. 236.

† Vol. I., p. 327.

‡ Vol. II., p. 225.

§ Dr. Davey.

ordinary waking state of the brain, as shewn in perhaps every case by a higher degree, however low, of freedom of manner. The very mixture that it is of sleep with waking shews its alliance, however distant in most cases, to insanity. No one then can wonder that in this condition of the faculties delusions so often occur.* In persons disposed to insanity, a strong passion will alone induce delusion: great pride, for instance, making a poor woman fancy herself the queen or the Virgin Mary. The wonderful experiments detailed in the former part of this paper in the last number throw also great light upon insanity, by proving the existence in the brain of an idea or impression leading to irresistible acts or opinions, without the patient even suspecting the presence or previous occurrence of the impression. Without knowing that we had made the impression in the sleep-waking, and calculated upon the result in the waking state, there could be no means of our learning the fact of unconscious impressions and ideas working in the brain to fancies and to acts. Such experiments must rivet every philosophical person and set him upon meditation.

I tried during the greater part of October and November to bring my two present patients, mentioned in the last number, to dream a particular thing at night;—something I had fixed upon with them in their sleep-waking. With one I succeeded twice only, and then the effect was not complete and was mixed up with other fancies: with the other I succeeded frequently, but far less fully than in the trials to produce effects in the waking state. Dr. Engledue has succeeded with a patient he has at this moment; but he fixed on very extraordinary subjects, which would be more likely to produce a deep impression. Hearing this, I have tried again; and been perhaps a little more successful, but still much less successful than with the experiments for the waking state.

Her abstraction was often so great, whether she was perfectly still or talking, that persons might enter the room, and even speak, unnoticed. I have often entered the room, not at all cautiously, when she and other mesmeric patients were chattering what they had rather I had not heard, some innocent nonsense about other people, and they have gone on evidently ignorant of my presence; and subsequently it was proved that they were ignorant of it.

* I have repeatedly pointed out, that, as the proportion of sleep varies from almost no sleepiness to deep coma; so the insane features vary from the faintest obvious peculiarity to perfect delusion and irresistibility.

From some untoward circumstance—pain, fright, excess of mesmerised water applied externally, mesmerised gold, some indisposition, &c., &c., and occasionally from some unperceived cause,—mesmeric patients do not wake up properly with the usual amount of means, or for a time with any amount, but remain only half awake, more or less delirious, recognizing others imperfectly or not at all, very cross and even malicious, very desponding or silly, &c., &c. The Okeys often went into this state from evident causes; and no person of the very weakest powers of observation could mistake their various states for imposture; indeed every class of phenomena which occurred in them, has been presented to me so repeatedly in others, that I am constantly reminded of them. This state occasionally took place in the present patient. On the 6th of May, I could not wake her, so drowsy was she, and she answered questions faintly. This probably arose from there having been several persons all the morning in the little room: for very susceptible persons feel the influence of all around them. I have had several patients who went to sleep without any mesmeric process if several others were near them and all was quiet: * some, as Rosina, it was very difficult to wake if

* One day Elizabeth Okey was shewn to Lord Brougham and Mr. Sheil and a few others. She was placed opposite and near them. Lord Brougham begged me to do nothing. All were near her, and staring at her. Soon she looked heavy, and fell senseless in deep coma. Lord Brougham winked at Mr. Sheil, and Mr. Sheil returned the wink, and both were satisfied of imposture. I begged them to regard this as nothing; as my object was not to convince them by sleep, however induced, but by other phenomena. I sent her sister, who was not so susceptible, to sleep by a few passes. Presently, as usual, they both suddenly went out of the coma, and were in their merry, wild, ecstatic delirium; and I shewed various beautiful experiments in traction behind their backs, involuntary imitation, rigidity, catalepsy, &c.: Lord Brougham at length, excited by what he saw, suddenly jumped up and exclaimed, "Oh, I see, these two poor children have water in the head, they've got water in the head;" and left the place, saying he had an engagement in the House of Lords. Earl Stanhope was all astonishment at Lord Brougham, and said quietly to me, "Some persons would not believe though one rose from the dead." Mr. Sheil remained a long while, and was shewn endless experiments, the convincing nature of which Sir William Molesworth urged upon him; but in vain. Long afterwards Lord Brougham sat quietly in my drawing-room for hours while I shewed him other cases, and among the rest the two wonderful instances of rigidity detailed in the second volume; and was beyond measure astonished, and was convinced of the truth. The Duke of Marlborough one day requested me to allow him to take Mr. Sheil to see Miss Melhuish's case, which had made a great impression upon him, as it had upon so many. After Mr. Sheil had witnessed her state, he took me aside, and honestly said, "When I saw mesmerism before, it was the first time, and I could not get over my doubts; but it is my duty to declare to you that I have no longer an iota of doubt remaining of the truth of mesmerism."

When Elizabeth Okey was at the house of Mr. Wakley, she was highly susceptible: and one of his sons and one of his reporters stood close on each side of her, while he himself stood close before her, rubbing lead upon her

others were near them, and her I was obliged always to remove to a part of the room away from every body,* if I wished her to wake soon after my experiments had been made upon her,—and the more 'that were made the better Rosina always was. Miss C. had arrived as usual at ten, and I was obliged to leave her and her aunt between one and two o'clock. Dr. Engledue attempted to wake her at a quarter past six, but she went into a modification of the state which I have just described. She wandered about with her eyes open, perfectly lost, and could not be roused. This all arose from one attempting to wake her who had not sent her to sleep; for I had sent her to sleep in the morning. I returned home at about seven, made a few passes before her, so as to send her to sleep and bring her under *my* influence, and then woke her into her natural state with perfect ease. On another occasion Dr. Engledue had sent her to sleep by one pass after she had awakened spontaneously in my absence. I had not sent her to sleep in the morning by less than several; and it was usual for a second sleep to be induced by fewer passes than the first. I did not know that he had sent her to sleep, and I attempted to wake her, but brought on the half-waking delirious state, and had to send her to sleep again, and wake her again, twice, before I could wake her into the natural state. When patients wake imperfectly and in this derangement, the proper plan is to send them to sleep again, and then wake them. Occasionally it is difficult for a time to send them asleep, and we have to wait before the attempt can be renewed successfully. Sometimes they are half awakened again and again, and it is necessary to send them to sleep frequently, or allow them to sleep a long while, before waking measures wake them into their natural state. After this long sleep of eight hours, she slept better at night than usual:—a common fact, but very convincing of the truth and composing powers of mesmerism. The diminution of excitability by the mesmeric sleep appears to

hand. From this proximity she fell asleep in ten minutes. He then turned round triumphantly and said, "You perceive that I have rubbed her hand with mesmerised lead, which you say has no effect upon her, and yet she has fallen asleep,—it is all imposture!" His object was to prove that if she was not allowed to distinguish between lead and nickel by her sight, the effects of nickel would ensue when lead was used. But nickel never did induce mere sleep; its effects were the deepest insensibility, frightful spasms, bending backwards (opisthotonos), lock jaw, suffusion of the face, &c. &c., not one of which took place; and yet he pretended she had fancied it was nickel and had acted accordingly.

Daily and daily have we proofs of all the truths that occurred in these sisters. And yet the medical profession, on the authority of a man ignorant of the subject and in no estimation for anything in medical science, cruelly denounce them as impostors

* Vol. II., p. 236.

render subsequent natural sleep more easy, and she was always the better the longer her mesmeric sleep, as well as the more she chattered. The same occurrence took place the next day spontaneously; and in all probability from the disturbance it had produced in her the day before. She passed spontaneously from her sleep into this state, and I had to make passes for five minutes before her eyes closed, and even then the state continued, and she protested, as they generally do in this condition, that she was not asleep; but by continuing passes I soon sent her into her ordinary mesmeric sleep, and in two hours attempted to wake her and succeeded. In her mesmeric sleep she remembered all that had transpired in the delirious state. Frequently there is no remembrance of it.

On another occasion, some time after I had sent her to sleep, she awoke spontaneously, and Dr. Engledue sent her to sleep again, and she passed into a deep coma, from which neither he nor I could wake her. At five in the afternoon I returned, and again tried in vain, as I found he had been doing. About six o'clock she became restless, spoke, said she wished to be awakened, told Dr. Engledue that she had a headache, which would be removed by passes made over her head with both hands, then breathing on her eyelids and around her head, and then blowing in her face. All this did remove her headache, but produced the half-waking delirious state; so that she said she was awake and must go home, put her shawl over her cap, omitting to put on her bonnet, and remembered both writing a letter to her father in the mesmeric state, and its contents, though in her ordinary waking condition she is ignorant of the whole. I now made downward passes before her, and at once sent her to sleep; and immediately woke her by blowing in her face,—the whole not occupying a minute.

One day I made her mesmerise herself with my hand. This brought on the same half-waking cross state; from which I could extricate her only by making downward passes before her, and bringing her into a mesmeric state in relation with myself.

If, after one of us had sent her to sleep, the other half awoke her into this state, and this other called to her, she went to him; but the moment the first called her, she left the other and went to the first: shewing the greater attraction to the party whose mesmeric influence had been most exerted. But if the other now made passes and sent her off, and the first half woke her and called her, she went to him, but left him as soon as the other called.

The disturbance of this state was one day such, that she told me afterwards she had seen each of us green. I recollect in a case of pain of the head in a young lady, objects frequently looked of a blue color. In this state Miss C. would not allow any other than the one who had sent her to sleep or half-wakened her to touch her; and on being fully awakened one day, was astonished at hearing a lady say, "Why she let's me touch her." In her half-wakened state she had not permitted it, but was ignorant of this when awake. Just so was she astonished, like the patient at Nottingham who stared when awakened after the amputation of his leg, if she was awakened in one room into which she had been led in her sleep from another. In the simple dreamy state (p. 474), she would take the hand of any one whom she mistook for the person she was dreaming of, and who was always one she was fond of,—one of her brothers, or a female friend.

The power of memory is so various in different patients, and in the same patient at different periods, that they will sometimes remember all the previous occurrences of the same state, sometimes forget certain ones, sometimes remember nothing of one variety of state in another, sometimes certain things. We see this difference on a large scale, in the fact that while the majority in their waking state remember nothing of the sleep-waking, others remember all, and others more or less. An unjust suspicion of deceit may sometimes arise from these variations, and from the fact illustrated by the experiments, described in the last number, of promises made in the sleep-waking and performed in the waking state, while the party protests with truth that he has no idea of having made the promise. A striking but well-known fact is that of a sudden shock destroying the memory of things that occurred immediately before it. I recollect being sent for into Hertfordshire to a lady whose horses had run away with her, and after running some distance had thrown her out of the carriage and stunned her. When she recovered, she had no recollection of the horses running away, nor of the circumstances that occurred for a short time before they ran away. I have seen persons frightened into a fit, and on recovering have no knowledge of the circumstances which had frightened them. Miss Collins was terrified one day in her sleepwaking by an epileptic pitching forwards with his head on the floor, as was his habit when seized. She was frightened out of her mesmeric state into her ordinary state. I mesmerised her as soon as I heard the fall in another room, and sent her off: and, not having spoken to her, awoke her. She was ignorant of all the

matter, though she had seen the boy on the ground in his fit. The next day I sent her into the sleep-waking as usual, and in this state she recollected it all; the memory of events of her waking state being stronger in the mesmeric than in the common state,—a fact in harmony with the heightening of various sensorial powers in mesmeric sleep-waking.*

One day, as usual, she did not hear M. Ann when awake, but did as soon as I sent M. A. into sleep-waking. This was done in perfect silence, so that I was unable to understand how she learnt I had mesmerised M. A. I asked how she came to know it. She told me she had not learnt it—was ignorant when M. A. had been awake and when in sleep-waking. I have no doubt this was true; and yet I have no doubt that something had been heard by her, by which she learnt that M. A. had gone off and that she had forgotten it; and indeed that this was both heard and still known by her brain unconsciously. The impression that M. A. was asleep was an unconscious one. She did not know the fact that I had already sent off M. A.: and though, from various circumstances, such as the knowledge that the patients were always sent into sleep-waking by me, &c., &c., she usually knew this perfectly well, the fact was only by experience known to her that she heard the other patients only when they were asleep. She was not conscious of her inability to hear them only in their sleep-waking, and could not comprehend it. Yet I am certain that the fact resulted from a mere impression (p. 360), but an unconscious one (p. 362). The ignorance of present circumstances in sleep-waking is often extraordinary. My patient Rosina,† who was always in a dreamy state, frequently denied that her arms were rigid, or being drawn, while this was the case, and would declare they were lying in her lap. Her aunt, who is never in a dreamy state, feels not, when her legs and arms are rigid, that she has legs or arms, unless force is used to them or she desires to move them. Miss C. occasionally was not aware she was singing: and sometimes, when another organ was excited, she perfectly remembered, sometimes perfectly forgot, the ideas of the excitement of an organ excited just before.

Mr. Thompson made some trials upon Miss C. with his will, on May 3, without apprising her, or any possibility of her suspecting his intention; he staying at Nerot's Hotel, she being with her aunt at Fludyer Street, Westminster. At ten o'clock in the evening, he willed as powerfully as he could

* See an instance as to judgment of time at p. 65.

† Vol. II., p.

that she should go to sleep. She had been writing a letter, and at that very time she became so drowsy that she begged her aunt to seal it for her, and hurried off to bed, and in a minute was snoring loudly. On the 4th he did the same, but told her in her sleep-waking what he should do, though of this she was perfectly ignorant when awake. At the very time, she all at once grew so sleepy that she hurried off to bed without curling her hair, as was her habit. She had been writing, and, ten minutes before the time fixed, she was restless and began to take her coffee: but soon she grew composed and sleepy, and was satisfied with but one cup instead of taking two or three, which she generally did, so overpowered was she with sleep. On each occasion, she could not help thinking of Mr. Thompson at the time she became drowsy, as she mentioned not only to Mr. Thompson, but, I learnt, also to M. A., when both were afterwards in the sleep-waking state at my house. Other curious experiments were given at pp. 322-3.

April 19. She attempted to mesmerise her aunt on account of head-ache, but, instead of succeeding, she fell asleep herself, and had an attraction to her aunt, and allowed this lady to excite her cerebral organs. She often subsequently attempted to mesmerise her aunt, yet the same effect never recurred but once. Nor was her aunt ever able to send her off but once, though her father and others of her family can: yet she is very fond of her aunt. She and her aunt made mutual trials daily for a length of time (see p. 49, &c.). The successful attempt of her aunt caused head-ache, confusion, giddiness, and various uncomfortable feelings in her head. These effects lasted till I mesmerised her the next day; and the attempt was never renewed.

Excepting the occasional occurrence of the dreamy state, there was great uniformity in her susceptibilities and phenomena. Once only or twice could I not excite her cerebral organs mesmerically; and at one period her jaw often spontaneously grew rigid in her sleep-waking state, and I had to relax it that she might converse, and, if I had awakened her without relaxing it, she would have been in this state after her awaking. But no rigid closure of the eyes ever appeared to occur: at least her eyes invariably opened on her waking. With some, always, frequently, or occasionally, the eyes or jaw, or both, remain closed after waking: and remain so for minutes, hours, or days, unless breathed or touched upon, or pointed at, or unless transverse passes with contact are

made upon them, or a cold substance applied, or something else done for their relaxation (see p. 56, &c.).

I mentioned at p. 346, that I at first awoke her by rubbing outwards on her eye-brows (transverse passes with contact), and blowing in her face. After a few days I failed, and she told me that I should never be able to wake her by the transverse passes only; nor could I. For such was her sleepiness that the contact of the passes deepened the sleep more than the transverse motion tended to dissipate it—a fact which I have frequently noticed, and then transverse passes at a little distance or blowing has answered. She desired me only to blow in her face. I breathed on her eyes and then blew. This at once succeeded. Breathing upon patients wakes some, at least breathing upon particular spots, and deepens the sleep of others. I lately mesmerised a lady who wakes if I place my hand upon her head, exactly at Veneration; yet two others at this present time always go from their ordinary sleep-waking into a very deep state by my doing this same thing; and the tendency of contact anywhere, especially with the head or eyelids, is indeed generally to deepen or prolong sleep. The wakening effect of blowing is generally perhaps produced by its sensible impression, just as rigidity often yields to the contact of a cold substance (p. 56). After some days I blew without first breathing on her eyes, and could not wake her. I had understood from her that I need only blow. Whether she had really meant that I should breathe and then blow: or whether the accidental circumstance of my having up to this time breathed before I blew, had already produced a habit: or whether the power of blowing had worn out, I cannot tell. But she now desired me to breathe upon her eyes first, and then blow; and this at once succeeded. This method however soon wore out; and she desired me on the 17th of April to breathe and then blow into her ears. For a time blowing into her ears awoke her rapidly and to a certainty. In two or three days this method also wore out: and she now directed me to breathe and blow upon her eyes: and this mere blowing upon the eyes succeeded always thenceforwards. At first I failed, but she said I did not blow hard enough; and so it proved.

I do not conceive that the prediction of the success of a method of waking is usually a sort of clairvoyance: but believe it arises from the effect of will or fancy. She had brought a sleep-waking friend to my house who could be awakened only by blowing into her ears, and this probably suggested the idea to her. Many of the modes of waking

are obviously arbitrary. Gall mentions a boy subject to convulsive fits and sleep-waking, who, though not mesmerised, predicted that the plan to bring him to himself was to take him into the garden: "and this invariably happens."* Such results appear to me similar to those important and beautiful experiments of making an impression in the sleep-waking state which shall tell unconsciously upon the patient in the waking state (p. 362, &c.).

To shew the effect of impression I may mention that I have a sleep-waker who, though unable to open her eyes or walk, hears and speaks. I readily wake her by transverse passes even at the distance of two yards. But in making them I generally made a slight noise by drawing the fingers of one hand on the outside of the fingers of the other. Such is the force of association that if I now make the passes without the noise, I do not wake her; and if I make the same noise by rubbing the palms of my hands together behind me under my coat, she instantly wakes. After a little while, however, she discovered this, and felt drowsy when so wakened.

Miss C. manifested not the faintest sign of clairvoyance of the lowest degree—that of predicting how long she should sleep on any occasion. She could not even distinguish my touch from that of others. She could not predict the course of her complaint, or of the phenomena: and did not pretend to see with her eyes closed, or distant things, or to know the past or future, more than in her common state. She had no kind of community of sensation nor cerebral sympathy. It was a simple, though beautiful case, of ordinary and intelligible phenomena, and of cure of disease, such as it would have been wise in Dr. Forbes to request to witness, instead of running about the town after extraordinary wonders exhibited for money or shew by persons not medical nor half so long or laboriously engaged in the investigation as myself, who live within a few yards of him and was shewing it every morning for four months to any friend who was curious. She pretended to no clairvoyance, and would not hear of it being possible that she ever could be endued with any degree of it.

I one day made passes and looked at her through a window, she and I standing on either side close to it; but no effect was produced. There was no result if she wore my black-glass spectacles; nor any if I nearly closed my eyes, though I still looked at her. Once I looked at her in a looking-glass and made passes at her reflection in it; but she did not drop

* *Fonctions du Cerveau*, t. ii., p. 511.

alseep before I had made six passes. In another experiment, in which I did not look at her at the time, I made twenty passes in vain. In a third experiment I tried again, not looking at her, and she went off at once. I felt satisfied, however, that this arose from her father looking directly at her at the same time; and this proved correct, for, as on different repetitions of this experiment, I could not wake her, and he always could; and my attempt at waking her sent her into the half-waking cross state. I was her habitual mesmeriser, and sent her off daily with one pass; her father had scarcely ever mesmerised her, but the power of his eyes looking directly at her was greater than that of my mesmeric passes directed to her reflection.

For want of leisure I did not prosecute these experiments, nor indeed any as I wished. But I have sent other patients to sleep through glass, and by passes before their reflection in a mirror, looking or not looking at their reflection—though the effect was always slower than if the operations were direct and no glass employed.

On the 22nd of April, I first found that I could produce local mesmeric effects in her ordinary state after waking her, or before I sent her off,—that I could close her jaw by downward passes with contact at its extremities, and stiffen her arms by fully extending them for a few moments. I afterwards found that I could excite the cerebral organs in her ordinary state by touching over them, or even placing her own fingers or anything else upon the head over their situation. While she was conversing pleasantly with me, I put my finger upon Pride. Her countenance instantly scowled, and she replied snappishly, conducting herself in a manner she never would voluntarily—in the ordinary play of her brain—in the ordinary excitability of all its organs. The effect was not strong in her ordinary state; she evidently had great power to restrain herself; but still the effects were decided and instantaneous. In the mesmeric state, there is much less power of general self-restraint; and expressions of pain are therefore far greater.

Whatever the knowledge of the susceptible organs she had acquired in her mesmeric state, she was destitute of it in her waking state. There could be no suggestion in her waking state as to those organs of the situation of which she still remained ignorant in her waking state. Yet I will not deny, after the experiments detailed in the last number, that her brain might have *unconscious* knowledge, and be *unconsciously* influenced by suggestion.

Mr. H. S. Thompson informs me that he has locally affected the cerebral organs by his finger in a person who had never been mesmerised, as well as produced effects by his mere will. We can relieve pain by local mesmerisation without attempting to produce the mesmeric state: and it is deserving of enquiry how far we can produce insensibility and rigidity locally without general mesmerisation. The local mesmeric effect on the cerebral organs in the ordinary state is but an example of local mesmerism.*

* Dr. Buchanan of America declares he can affect the cerebral organs in persons who had never been mesmerised, and has published a pamphlet on the subject, a copy of which he politely sent me: and I take this public opportunity of thanking him, as well as of acknowledging a kind letter from him and one from Dr. Caldwell. The work is entitled, *Sketches of Dr. Buchanan's Discoveries in Neurology*. Louisville, 1842. The following are the two letters:—

"Dr. John Elliottson.

Louisville, May 10, 1843.

"Sir.—The moral courage and energy with which you have maintained in London the cause of Truth, have inspired me with the desire to render my feeble tribute of respect to so eminent an example of qualities unfortunately too rare among the distinguished of the medical profession. My inclination to address you has been increased by the manner in which your name has been mentioned to me by your friend, T. C. Grattan, and by Professor Caldwell.

"I take the pen now to give you some sketch or hint of what I have been doing, and to communicate to one, who I trust would shrink from no truth from any source, some of those things which a prudent man would not communicate to the public. In *profound* science—in discovery—there must be exoteric and esoteric knowledge.

"Last January I forwarded you from New York, by the house of Wiley and Putman, a copy of a pamphlet published in this city, and a copy of the *Democratic Review* (the most influential and respectable monthly in our country), containing a friendly and liberal essay upon the science of neurology. From Boston I forwarded you, by Mr. Grattan, a copy of my diagram illustrative of the phrenological portion of neurology. These I hope you have received.

"I deeply regret that I have not been able to devote my time and energies exclusively to the cultivation of the science, which I might have brought by this time to a much more perfect state than that in which it is. The science of mind, I have asserted, is strictly a mathematical science; but I have made little progress in giving it the exactness and developing the facts by which this may be proved.

"As to the discovery that the brain may be excited and its functions ascertained by touching the different organs of the head with the human fingers, I presume you have by this time seen enough of the phenomena, and in your experiments made discoveries enough, to shew you how vast a field lies unexplored. The most successful method which I have used for discovery, is not to touch the organs of my subject, but to make him place his fingers upon the various parts of my head, from which I wish him to derive an influence. Each organ radiates its own distinct and peculiar *nerveaura*, which when received by another person stimulates in him the corresponding function. The impressible person may thus be compelled to act out the character of any organ which you wish to investigate. In some of the impressibles the influence transmitted through either hand will affect only one half of the system, and it will be necessary to bring both of their hands into contact with your head that they may not experience a one-sided effect.

I cannot terminate this account without expressing the delight which every circumstance of the case gave me. The

This would not be very pleasant; but I have frequently distorted my subjects in that manner, making them feel contradictory passions in the two hemispheres, and giving a double expression to the countenance. The most unnatural and terrible experiments may be made in reference to the relations of the hemispheres. It is even practicable to split the man in two—to destroy all co-operation between the two sides of the body, by passing the hands along the median line of the head, so as to form an influence between the hemispheres. The results of this experiment are so frightful that I never dared to continue it, but have always speedily arrested it by touching the organ of Self-possession upon the side of the head (marked upon my diagram, Self-possession).

"The physiological functions of impressible persons may be as effectually controlled by touching others' heads, as by having any excitement attempted upon their own. Just before I left Boston, I relieved the wife of Dr. T. (while labouring under profuse menstrual complaints), by placing her fingers upon the upper part of the region of Cautiousness, where lie the organs restraining the sexual functions. Having a good stock of health myself, I have rendered much more pleasant and effectual service to the impressible in this manner than by touching their heads.

"The impressible constitution not only feels the influence of the human brain, but feels the influence of any medical article with which it is brought into contact. Thus small quantities of medicine placed in the hand of a susceptible subject, will affect him as powerfully as if it had been taken into the stomach. The results are developed almost instantaneously. In this manner I have found it practicable to ascertain the exact physiological tendency of any medicine uncomplicated with any morbid influences, by trying it upon healthy subjects, and to discover in what manner each mental or physiological function is affected by any medicine or article of diet.

"It is not even necessary that the medicine should in all cases be in contact with the hand? The influence of the medicine which can pass through the arm to the body, can also pass through intervening substances to the arm. Incredible as it may seem, I can assure you that I have had several subjects who could feel distinct medicinal impressions from substances which were contained in envelopes of paper, in boxes, or in phials. Persons of this delicate structure of course feel the efficacy of the homœopathic infinitesimal doses, and the prevalence of impressibility in various degrees accounts for the success of Hahnemann's doses. One of the homœopathic *globules* held in the hand would affect Mr. I. so sensibly, that he could describe a long list of symptoms produced in himself similar to those related by the homœopathy, when he knew nothing of the medicine or its effects. Medicinal influences, however, are not transmitted with speed and efficiency, unless the medical agency is transmitted into the system by a stream of the *nerveura*. Electricity and Galvanism have been proved capable of transmitting the medicinal influence of any substance through which they are passed. I have proved that the *nerveura* has the same power. When we place our fingers in contact with the medicine which is touched by the subject, a stream of nervous fluid is passing from our hand through the medicine to him. This *nerveura* makes him feel promptly effects which would otherwise hardly be produced.

"The facts which I have just stated have inspired me with a determination to make a critical review of the *materia medica*, and investigate the properties of medicinal and alimentary substances in reference to the human organization. I hope thus to lay down the true laws, not only of therapeutics, but of dietetics, derived from the relations between the various species of food and the various mental and physiological organs of the brain.

"The impressible constitution is an inexhaustible wonder: it does not require the presence of any appreciable quantity of matter to affect it! The *nerveura* of the human brain and body will produce as great effects as ponde-

cure was most satisfactory: the good sense, perfect integrity, and undeviating reciprocity of kind feeling of the

rable medicines. The *nervaura* may be transmitted through any good conductor, and produce its effects as well as when the subject is brought into nearer contact. Thus by placing a pencil-case upon the cerebral organs, I have been able to affect the subject who touched its other extremity, and have sometimes made the experiment more striking by previously blindfolding the subject. Even articles which have been placed in contact with the human head will retain enough of the *nervaura* to give a strong impression to the subject.*

"But what is most wonderful of all—a fact which should never be stated but to those who are prepared 'to believe all things possible'—the paper upon which we write receives and retains a sufficient amount of the influence of our minds and bodies, to impart to another a correct conception of them, and of the sentiments expressed in our writing. I have made my subjects describe the impressions received in this manner, and I would mention the result of one of my experiments made last winter in my chamber with Mr. Inman, brother of Henry Inman, the distinguished American artist, to whose politeness I am indebted for the delivery of these lines. I placed in Mr. I.'s hands four letters unopened—all from men of marked character—one of whom was Professor Caldwell. Holding each between his hands, without even seeing the superscription, he gave his impressions in reference to the men from the effect they produced upon him. It is no exaggeration to say, that I could not myself have given a more correct description. (I beg you will bear in mind that my operations are *always* conducted in the natural state,—no mesmeric preparation or somnolence is permitted).

"The question has probably occurred to your mind, how far the mesmeric sympathy between the operator and subject interferes with the results in the cerebral excitements which I practice. I do not doubt that those who proceed according to formulae of mesmerism alone, may be deceived from that cause. I believe the experimenters in England, as well as the United States, have operated almost solely in that condition of the system with which mesmerism had made them familiar, and have not adopted any simpler plan. I have the best evidence that my mental condition or design does not control the results in my subject, as I have necessarily often mistaken the positions of organs, and found it entirely impossible to develop their functions until I touched the exact points of their location. I always find the organs lying in fixed and certain positions, and their functions equally certain. Like the keys of a musical instrument, they respond only when touched; and if we have a good instrument, we elicit a full and distinct note (invariably the same) at every point we touch.

"The impressible constitution, which I have sometimes called my psychometer, gives me the means of making an unlimited *diagnosis* of all others. It feels and manifests every physiological action, morbid or healthy, and every mental action resulting from the influence of any part of the brain with which it may be brought into contact. By this sympathetic diagnosis, I have found it practicable to explore the functions of the living brain—to trace the boundaries of convolutions by the aura which they emit—to discover the degree of natural or artificial activity in the organs, and to ascertain the states of health and disease throughout the system. Have you

* "The *nervaura* of each organ radiates and passes through the atmosphere, but with less facility than through good conductors, as flesh and metal. There are very few *non-conductors* of the *nervaura*. Hair, bone, feathers, bees'-wax, and a few other substances, have the best claims to that title. Glass is a pretty good conductor. All forms of cerebral action, whether *thought or feeling*, admit of radiation and conduction from the brain. I have no doubt that impressible constitutions may be found capable of catching and describing these radiations. My experiments, however, have been chiefly by conduction.

patient, her father and aunt, were a daily gratification to me. I cannot imagine a family more truly respectable, more happy in themselves, more an example of what every family should be, than their's: and my ability to dissipate a cloud which was darkening it will ever be remembered by me with thankfulness.

fallen upon those things—and if so, how far have you carried them? The cultivators of science are few and far between. In our own country, Lilas Jones, Esq., of New York, (author of a very respectable volume upon phrenology, &c.,) has taken a most active part in the philosophical cultivation of neurology. Dr. S. Fonz, author of '*Climatology*,' &c., has taken a lively interest in the subject. Professor Caldwell, as usual, has been a bold and fearless advocate of truth. In Great Britain I fear you have the same complaint to make. Scientific men dread new truths. The Edinburgh men I fear are cold-blooded conservatives. It will give me much pleasure at any time to hear from you, or to receive any document showing how the cause of truth is going on, or what is your individual progress. If I can reciprocate the favour in any way, command me as you please. Receive the assurance of my highest respect, with the hope that you may live to be as justly appreciated and admired by all your contemporaries as by

"Your humble servant,

"JOS. R. BUCHANAN."

"Louisville, May 12th, 1843.

"My dear Sir.—By the politeness of my young but distinguished friend, Dr. Buchanan, I am permitted to add a brief postscript to his letter to you. Of this I avail myself the more promptly, and with the higher pleasure, because it affords me an opportunity to offer you an assurance of the lively and grateful remembrance I cherish of the many favours and courtesies I received from you in London. It is also peculiarly gratifying to me to be able to assure you of the entire confidence you may place in the Doctor's statements (strange and startling as they may appear to you) respecting his experiments in neurology. I have not myself either witnessed or performed all those experiments. But from those which I have witnessed, and from what I know of Dr. Buchanan's character, I entertain no shadow of doubt in relation to the others.

"We live in most eventful times. I firmly believe, and have long believed, that we already perceive the dawn of a new epoch in anthropology, which, through discoveries in relation to the nervous system (the brain of course included), is destined to throw into 'shadows, clouds, and darkness' all our previous knowledge in that important branch of science.

"Soon after my late return to the United States, I engaged in a series of experiments in mesmerism, which resulted in such brilliant and triumphant success, that I recorded them, accompanied by other kindred matter, in a small book, or large pamphlet, of more than 150 pages. Of this production I forwarded to you a copy, by favour of Mr. Dickens. Pray did you receive it?

"With the most distinguished regard, I have the honour to be,

"My dear Sir,

"Yours very faithfully,

"CH. CALDWELL."

V. Cures of Debility, Hysteria, Exhaustion of Intellectual Power, &c., with Mesmerism. By Mr. T. CHANDLER.

TO THE EDITOR OF THE ZOIST.

SIR,—My cases in mesmerism since the last report, though not numerous, are, I think, very good. I beg to offer them to your notice, if you think them worthy of insertion.

Miss H. K., æt. 23, complexion fair, temperament lymphatic, has suffered for above four years from severe head-aches with dimness of vision, pain at the epigastrium and in the back, with a sense of oppression at the chest, loss of appetite, and frequent attacks of dyspepsia. Latterly there has been severe menorrhagia, and her appearance has become rather chlorotic. On two former occasions these symptoms gave way to steel. This time (May, 1845) she had the same remedy for a month without any effect. I therefore proposed mesmerism, and on June 13th commenced. In ten minutes the eyelids began to quiver in that peculiar way which mesmerism produces, and in twenty minutes they closed, though only for a short time, shutting and opening at intervals for half an hour. When I roused her, she said she had not forgotten herself, but could not possibly keep her eyes open.

I may remark, that the eyes followed the hand at the very first pass—shewing her to be a very susceptible patient.

14th. The eyelids began to quiver in three minutes, and immediately commenced shutting and opening. She did not become unconscious, but had not power to speak.

16th. Third time. Says she is decidedly better. Asleep in three minutes. After a time the eyelids ceased to quiver, but did not remain permanently closed, nor did she become unconscious, although I produced catalepsy.

17th. Still improving: says she feels quite well: the headache and pains in the back have quite left her. Phenomena as yesterday.

23rd. She is regaining health and strength rapidly: her friends begin to observe the improvement in her appearance. The sleep now becomes rather more profound, though not permanent. There is traction in a slight degree, and she is conscious that the hand moves, and complains of a severe pricking sensation. This I have found in all cases where there has been sufficient consciousness left to describe it. There was a pain in the back to-day, which she said she could feel me removing. I was pressing on the part with the points of my fingers.

I am now mesmerising her only every second day.

29th. Her health appears to be quite restored: she says she feels better than she has been for years. The phenomena remain the same, with one exception. I have before stated that she is cataleptic. On putting her hands in any position and then awaking her, the hands remain fixed in spite of her attempts to move them, although wide awake. Transverse passes or blowing relieve them immediately. If she blows on them herself they go down. If I put up her hand and make passes along the arm with my hand, it produces no effect; but one pass before the face immediately fixes it. Or if I put the head to one side, and make a pass before the face, the head becomes fixed, though she remains awake. It is very curious to hear her talking quite cheerfully, and yet not to be able to move. It does not occasion her any pain, even if I place her in a constrained position.*

July 20th. She continues quite well. I mesmerise her now about twice a week, and she does not miss it on the intervening days, which was the case some time ago. When I speak to her in my usual voice, she always answers pettishly, like a person very drowsy who is annoyed at being disturbed; but if I whisper ever so low, even from the further side of the room, she answers pleasantly and converses with me readily: but she will not answer any other person. This appears to be another confirmation of the whispering phenomenon.

She is now so very susceptible, that one pass, or even a slow bow, or four times closing my eyes before her, sends her to sleep.

There are two or three phrenological phenomena in this case. The head always rises on touching Veneration. Self-esteem always produces a choking sensation so marked, that she frequently declares I am holding her throat. And more curious still, when I touch Destructiveness, she always begins laughing, and cannot resist the impulse. She is perfectly insensible to pain, and allows a piece of string to pass up the nose, into the ear, or be drawn across the ball of the eye, without moving a muscle.

I have been enabled to make many converts by means of this case,—the patient being a young lady of high respectability, a native of the parish, and consequently very well known.

My cases, reported in the last number of *The Zoist*, all remain quite well. Holdsworth has had another attack simi-

* My patient Holdsworth shews similar phenomena, and goes even a step further: she can fix her own arm or even a single finger by making a pass with her other hand.

lar to the first: it was produced by fright. She was quite relieved by being mesmerised three times within twenty-four hours. When I first saw her, though she was apparently quite insensible, she came immediately under the influence of mesmerism; and in a few minutes I awoke her, and found she had regained her natural consciousness.

Smith has become so very susceptible, that she goes to sleep instantly by a nod or even my closing one of my eyes, though I may not have seen her for a week.

I will briefly mention a case that occurred some time ago, but which has never been published, as it shews how the susceptibility sometimes alters in the same individual under different circumstances.

Maria Hinchliffe, æt. 19, of fair complexion and tolerably healthy appearance, had been suffering for some weeks from hysteria, attended by frequent attacks of catalepsy. She would sometimes remain for many hours in one paroxysm—without moving a limb or even a muscle. She came quickly under the influence of mesmerism, and soon became very susceptible; shewing, amongst other very curious phenomena, a state of perfect second consciousness, being quite lost to her own identity, and forgetting when in the mesmeric state the name of everything and every body; and on being awake, declaring that she had not been asleep above a few seconds, every succeeding mesmerisation being joined to the foregoing one.

She recovered rapidly, and after a month I only mesmerised her once or twice a week. After about two months, by some accident I neglected seeing her for a fortnight, when I found she had lost all her susceptibility. I could not produce any effect even in half an hour, although the time previous she went to sleep with only one pass. She was married and left town, and remained quite well afterwards.

Mr. F. æt. 28, of nervous temperament, has been suffering for some years from an over-worked brain. He had been reading for college until about three years ago, when he was obliged to relinquish his studies in consequence of the great nervous excitement produced. He has since that time been travelling and reposing from study, but still he feels the least extra mental exertion too much for him; his ideas become confused when he attempts to apply himself to anything attentively; his bodily health is also somewhat impaired, and he suffers from frequent attacks of dyspepsia.

Aug. 8th, 1845. I mesmerised him for the first time with slight effect; his eyelids closed and opened several times, and he afterwards expressed himself quieted.

9th. Effect much stronger. He slept, though without losing consciousness, for eight or ten minutes, three separate times, breathing heavily, &c.

11th. Much the same; effect increasing.

12th. Slept nearly half an hour at once.

13th. Says he feels better and has more command over his mind; he can direct it better. Effect much the same.

18th. Is suffering from dyspeptic symptoms, and is consequently more irritable than usual, and is less under the influence of mesmerism this last day or two. I have given him a little gentian and potash and a few alterative pills.

20th. Dyspepsia very much relieved and he appears altogether calmer; he slept to-day after a very few passes and remained very sound for forty minutes. This is the quietest and best nap he has had.

22nd, 23rd, and 25th. Sleep more and more profound. Caught himself dreaming several times, yet it did not appear to him like natural sleep. Says he is always much calmer after the mesmerism than he has been all the day, (I always see him in the evening,) and he fancies he can now apply himself to study for a much longer time without feeling mental fatigue or excitement.

31st. Says he can direct his mind much better, and feels decidedly more able to apply himself.

Sept. 14th. He has been mesmerised about four times a weeks since last report, and is rapidly improving. Says he always enjoys the mesmerism, and looks forward to it as a luxury.

I have tried traction of the hands the last three or four times, and though they have not moved, there has been each time—particularly when I commenced—slight twitching of the fingers; and to-day after he awoke, he observed *unasked* that he had experienced a sensation like slight galvanic shocks passing through his hands, and which was most perceptible at the palms. Finding this on several occasions, I continued darting my fingers towards his head, and he told me it gave him a sensation as though I were shaking his head. On one occasion he said, "If you do anything to my head, please to do it a little more gently, as it appears to agitate my brain; it feels as though the brain were a bladder of fluid, and that you were pressing upon it—so marked is the effect." When the dartings were made more gently the sensation was agreeable to him.

Oct. 17th. He has been mesmerised every second or third day since last report. All his friends compliment him on his improved appearance, and he says he feels so well that he has determined on going to Cambridge next week for the purpose of resuming his studies.

Mesmerism has triumphed in this case over physic and physicians; for my patient had been under various means of treatment for three years previous to my seeing him, and in little more than two months by means of mesmerism he is enabled to resume his studies.

I have several cases in hand, but think they will be better worth reporting in your next number.

I remain, Sir,

Yours obediently,

58, Paradise St., Rotherhithe,
Nov. 25th, 1845.

THOMAS CHANDLER.

VI. *More painless Amputations and other Surgical Operations in the Mesmeric State.* Communicated by Dr. ELLIOTSON.

"Quachery. The Mesmerisers.—If Dr. Elliotson (who had done so much to raise the reputation of University College) felt himself required to resign his office, why are Dr. Wilson and Dr. Ashburner allowed to retain their appointments at the Middlesex Hospital? They are as much practisers of that absurd delusion as the former. Is it fair to the governors? Is it fair to the patients? Is it fair, or decently honest to the pupils? What would be thought of any body of governors retaining a chaplain to a hospital after he had become an infidel or an atheist?"—*Lancet*, Dec. 6, 1845.

BAD news from France! worse news from India!!—to those who have assured their patients, and to those who have proclaimed to the world, that mesmerism is useless and a gross imposition and delusion.

I lately received the following printed account from France.

Amputation (at Cherbourg, October 2, 1845) of the Leg of a young person seventeen years of age, in mesmeric sleep, who did not experience the slightest pain.

Miss Mary D'Albanel, seventeen years of age, had laboured, for many years, under disease of the right foot occasioned by a sprain. For above three years amputation had been pronounced inevitable. But, notwithstanding the progress of the disease, the patient could never be brought to consent to an operation which the most courageous man never

contemplates without dread. At length it was determined to have recourse to mesmerism, in order to render her insensible of pain, and in order to perform the operation, the necessity for which was every day becoming more imminent, without her knowledge. She was mesmerised by M. Durand, who had no doubt of success; and the result proved the accuracy of his judgment.

The first effect of mesmerism was the restoration of Miss D'Albanel's appetite and sleep, of which she had very long been deprived. The degree of her insensibility having been frequently examined, was at length found to be such as was necessary, and she consented, during her sleep-waking, to submit to the operation, or rather she earnestly entreated to have it performed. The amputation was fixed for the following Thursday, the 2nd of October, at half-past twelve.

On the day fixed, at eleven o'clock, Miss D'Albanel was sent to sleep in less than three minutes, and then placed upon a table. Preparations were immediately made in her presence; and, as soon as M. Durand was satisfied that the insensibility was deep and positive, he informed the surgeons that they might begin the operation with perfect certainty. Then, in the midst of a solemn silence, and while all the assistants were fixing an attentive and scrutinizing eye upon the peaceful countenance of the patient, Dr. Loysel made a large circular incision with his knife, which, penetrating deeply into the flesh as far as the bones, laid bare the greater part of the tibia and fibula. The blood flowed abundantly. The two flaps were cut and dissected, the periosteum cut, the bones sawn; the ligature of the arteries, the cleansing and putting up of the wound, the application of bandages and lint,—all was done *without the patient giving the slightest symptom of pain. Her countenance continued calm and undisturbed; her hands remained constantly free, and she several times smiled and conversed with her mesmeriser, even during the most painful stages of the operation, which, including the putting up, lasted above half an hour. The insensibility was complete; the patient had no knowledge of what was doing; the pulse underwent no change in either strength or frequency.*

Miss D'Albanel was immediately carried to bed, and allowed to remain still for a short time. In a quarter of an hour she was awakened, as on former days, by the mere will of her mesmeriser, in three or four seconds, and at the distance of two metres. She opened her eyes suddenly, smiled to those around her, and thus remained above ten minutes without perceiving what had taken place, and free from all suffering: then she said, without too strong an emotion,

"Ah, I perceive it is over; what a blessing,—oh thanks! thanks! gentlemen."

Being requested to mention what she had felt or experienced during her sleep, she replied; "*I know of nothing: I have felt no pain; I recollect nothing.*"

She was then asked, "How, then, did you know immediately that the operation had been performed?" "Without that elevation which is above my knee," (the cradle to elevate the bed-clothes from the leg,) she replied, "I should not have perceived it so soon; for I have no pain at this moment."

She was very calm the rest of the day, and slept quietly the greater part of the night. It was the same the following days. On Monday, October 6th, the first bandages were removed at two o'clock, and the wound dressed during mesmeric sleep. This dressing, which is generally very painful, gave her no sensation: on being awakened, she had no knowledge of what had been done. From the moment of the operation (ten days had now elapsed) she constantly preserved a remarkable serenity and cheerfulness. She had not one bad symptom: not even the nervous excitement which is so common after painful operations. The wound is now nearly gradually healed, and there is every reason to hope for a speedy cure.

It is thus completely proved by experience that mesmerism, producing the most absolute insensibility in the organs, may be of valuable assistance and render great service in surgical operations, and in amputations which are always so painful, by sparing the unfortunate patient both terror and anguish. And after an operation, the agony of which excites an irritation which is sometimes very dangerous, how happy are we in being able, through the means of mesmeric sleep, to prevent nervous accidents, lock jaw (*tetanus*), for example, which often destroys life, and to restore the vital powers which such a shock has exhausted. This is always the result when sleep-waking is effected, and was very striking in the case of amputation which we have just witnessed at Cherbourg.

What happy, what blessed results, then! The terrors which usually precede amputation, the agony which accompanies it, the cruel recollections which follow it, *are all destroyed and annihilated by mesmerism.*

What an astounding phenomenon, and how deserving of rivetting the attention of the learned! Unluckily for the science, mesmerism, this unknown but real power, this mysterious and imponderable agent, escapes observation; and the men who have devoted themselves with the most ardour to the study of this most interesting branch of anthropology, have

hitherto been unable to discover the causes of so prodigious a change, of so deep an alteration of the laws of life.

Cherbourg, Oct. 11th, 1845.

P.S. Yesterday, Sunday, the tenth day after the operation, the patient got up, and sat at the window from twelve till five o'clock. To-day, Monday, Oct. 13th, she left her room and took a turn in a neighbouring garden, and sat there afterwards for above two hours. She is now perfectly well and goes out every day.

Cherbourg, Oct. 13th, 1845.

The fourteenth day of the operation, the wound was completely healed, and all dressing left off.

This amputation, performed under such extraordinary circumstances, and the rapid cure which ensued, have produced a strong sensation here.

Cherbourg, Oct. 30th, 1845.

Delente
Ministre des Aff. militaires
Paris
Garnison de Cherbourg

Gibon
Am. P.
Docteur Médecin
de la Faculté de Paris

Maria D'Albanet

Durand
Professeur de Philosophie

Loysel
Docteur Médecin, P.

Waragon
Professeur

The operation performed by Dr. Loysel, does the greatest honour to this young surgeon, and to Dr. Gibon, who assisted him with the obliging concurrence of M. Arsene Delente."

With the printed account came the following private letter:—

“Sir,—In the two-fold interest of science and humanity, of which you are one of the most noble supporters, and to which you have devoted your whole life, I have the honour to send you three copies of the account of an amputation of the leg lately performed at Cherbourg, in circumstances and with success altogether remarkable, upon a young lady, seventeen years of age, in the mesmeric state. This operation with those which have taken place in your country, always at the head of useful innovations, and which is of such importance to medical science, is exciting the very highest sympathy in our city, and producing a great sensation at Paris in the learned world. It is the first mesmeric amputation of a limb that has been performed in France. A fact worthy of remark is, that this young person was very insusceptible. The sleep-waking state did not appear till she had been frequently mesmerised: and I could not induce perfect insensibility, such as I considered indispensable, till I had mesmerised her a *hundred and sixty-two times*. Great patience and indefatigable perseverance were necessary, and you may conceive that, moreover, I had to struggle with more than one kind of prejudice and obstacle; but I was firmly convinced that I should succeed; hope and charity gave me courage. My expectation was not disappointment: thank God, all was completed.

“If, Sir, as I doubt not, you are interested in this official communication, and judge it, as well as my letter, worthy of being translated into English and inserted in the very interesting journal, *The Zoist*, in which you are one of the most enlightened writers, I shall request you kindly to receive other accounts, which I will transmit relative to some successful mesmeric cures of mine, and of fresh operations which will be performed shortly by the same means,—two amputations of the leg and the removal of a cancerous breast.

“A very remarkable and consolatory circumstance in the present case was, that the two surgeons who assisted were but a short time before shockingly incredulous. But both, being men of feeling, talent, and foresight, at length did homage to truth; and, after having witnessed numerous very interesting physical and psychological phenomena, which I produced expressly for them, they bent before the undeniable testimony of fact, which is stronger than all reasoning. Their well-grounded conviction of the reality and importance of mesmeric science, will prove a happy circumstance to all of us

here, and to you likewise. It is another triumph of good sense and experience over prejudice and preconception.

"Persons who, like you, Sir, are practising mesmerism with such praiseworthy perseverance and disinterestedness, ought to take courage more and more. I say it with deep conviction, the day of ridicule and spite is past. Our age is one of cool reason; observing, analyzing, and disposed to eclecticism, it no longer affirms or denies; it doubts. This is the most favourable state for the examination of the important question which agitates and excites all minds at present. Men at length comprehend that it is neither rational nor philosophic to condemn *a priori* whatever human reason cannot at the first glance embrace in all its details—whatever resists the first intuition of intelligence. In truth, all is mystery around us; without speaking of the phenomena of gravitation, light, and electro-magnetism, the faintest act of human will is sufficient to confound the proud pretensions of those who still desire to measure the greatness of the wonders of creation by the standard of their own intelligence, and to blast with powerless anathemas the truths which they cannot understand. Contemptuous silence, prejudice, and obstinacy are now useless before the material facts which any person may produce and renew in some measure at will; and whatever, in short, be the situation or grandeur of individuals, they must submit to the admirable and eternal order established by the Sovereign of all things. The earth, therefore, still turns in spite of the chains with which the Inquisition dared to load the unfortunate Galileo: and the blood still circulates in spite of the implacable enemies of Harvey. Lord Bacon has said with reason, 'Time is a great innovator.' The father of experiment and philosophic method might have added, When men deny a fact of nature, it is certain that sooner or later she will conquer.

"Accept, Sir, I beg, my expressions of the esteem, respect, and admiration with which your distinguished talents and ardent philanthropy inspire me.

"Your very obedient and devoted servant,

"L. DURAND,

*Professor of Philosophy in the College at Cherbourg,
Officer of the Royal University of Paris.*

"Cherbourg, Nov. 8, 1845.

"P.S. Be so kind, Sir, in acknowledging this packet, as to inform me where I can procure at Paris your different works, entitled, *Numerous Cases of Surgical Operations with-*

out Pain, &c.; *Cerebral Physiology*; *Human Physiology*; as well as the collection of *The Zoist*, one number of which I have read with the deepest interest, that was given me four months ago at Cherbourg by the Duke of Marlborough, who prides himself upon being one of your friends."

Read this, Dr. Chambers, at this moment president of the Royal Medical and Chirurgical Society, who still go about daily denouncing mesmerism as humbug and its abettors as impostors. Read this, Sir Benjamin Brodie, Dr. Marshall Hall, Dr. George Gregory, Dr. Copland, Mr. Liston, Mr. Bransby Cooper, and you other members of the Society. Compare this case with that which was read to you in November, 1842—three years ago. That you contemptuously pronounced a piece of imposition. Poor Dr. James Johnson declared he would not have believed the facts had he witnessed them, and has quitted this earthly scene, and so has the good president, Dr. Williams. Is this, and the four other painless amputations and numerous other operations recorded in *The Zoist*, also imposition? In your irrational feeling against the mighty truths of mesmerism, you "entirely passed over," as I pointed out to you at the meeting, "the comfortable nights, the return of the appetite, and the improved appearance of the poor man by mesmerism." Were these imposition? Yet you find in the recent case in France, "the first effects of mesmerism upon Miss D'Albanel were the restoration of appetite and sleep, of which she had been long deprived."

You cried out against the poor man, because, while his left leg was being taken off without his feeling, he did not suddenly move his right. Miss D'Albanel was equally ignorant of physiology, and did not move her other leg. Nor did the poor woman, whose arm was amputated without her knowledge at Torquay, move her other arm (p. 207):—"her other arm remained on the arm of the chair without restraint, and it did not move:" "the incision for the circular operation was made without producing the slightest movement in the arm, countenance, or body; the whole was in a perfectly passive state, exactly as in a dead subject." Indeed, there is no mention of any such movement of the opposite limb in any, but one, of the seven amputations which have now been recorded. In one, the opposite extremity moved: but this must have been an accidental occurrence, as it has happened in no other cases. A further proof that this is not necessary is the fact, that, when I had cut off the heads of some frogs,

and then pricked the toes of one foot, the corresponding foot contracted, but the other leg was perfectly still, except once or twice, in twenty trials.

You all seemed totally unaware of the difference between fortitude and insensibility. You adduced instances of wonderful fortitude under operations, and then considered insensibility, where no fortitude was depicted or boasted of, to be fortitude. The French patient shewed no fortitude: "her face was calm and passive; her hands relaxed, and she often conversed and smiled with her surgeon during the most painful steps of the operation."

If this will not content you and your great ally, Mr. Wakley—yes, I repeat it, your ally—read for the sake of humanity the following narratives from Asia.

The following account I have extracted from the number for last June (Vol. iii., No. vi.) of the *India Journal of Medical and Physical Science*, edited by C. Finch, Esq., M.D., and published in Calcutta. The number was kindly forwarded to me by Dr. Ashburner.

In the last number of *The Zoist*, I presented the English public, under the head of "Surgical operations without pain in the mesmeric state," with an extract from a July number of the newspaper called the *Bengal Hurkaru*, headed "Dr. Esdaile's mesmeric feats," among which was an operation without pain in the mesmeric coma. What the operation was I knew not, but presume it was one of those related in the present account, and indeed that upon Buxoo Khidmutgar.

I extract the whole communication, and not merely those parts which relate to the operations. For the whole is remarkable on account of its admission into a colonial medical journal, while all the medical journals at home are too dishonest to act so wisely, with the exception of one or two, which admit no more than they cannot well avoid, and after admitting that little endeavour to wash their fair and delicate hands of the subject. It is written with great spirit, and contains many just remarks. Dr. Esdaile relates *eight* cases of operations. 1, 2. The extension of a contracted knee and elbow. 3. An incision into a tumor. 4. The paring away of an ulcer on the heel. 5, 6. The removal of two tumors. 7, 8. Two amputations. Six of these operations (in which number were both the amputations) were performed *without any sensation*: in two the insensibility was imperfect from too little time having been bestowed upon the mesmeric process. The example of M. Durand's perseverance should be followed by all mesmerisers.

I have substituted a few Latin terms.

"Mesmeric Facts, reported by James Esdaile, M.D., Civil Assistant Surgeon, Hooghly.

"SIR,—Since it appears that nothing short of seeing with your own eyes will convince you of the *physical* effects of mesmerism even, I will be happy to afford you ocular demonstration. But this is a bad precedent, and I only make you this offer, because, as the editor of a medical journal, you have it probably in your power to advance or retard the reception of an important truth among medical men, in whose hands the investigation of this matter should be exclusively lodged for the satisfaction and safety of the public, for it is subject to enormous abuse in the keeping of the ignorant and knavish.

"You are aware that few can be privileged to the extent of St. Thomas in the solution of their doubts, and that the horizon of human knowledge would be very circumscribed, if we only believed in the evidence of our own senses. There are recognized laws of evidence for testing the credibility of human testimony upon whatever subject it may be given, and however new or strange the proposition may be to us, we shall, by a careful and dispassionate examination of the proofs, be able to determine what we may safely believe; on what points we should suspend our judgment, and how much we ought to reject. In spiritual matters, we may have been told, 'Blessed are they that have not seen, and yet have believed.' This blessing also follows the ready but discriminating reception of truth in philosophy, morals, and secular affairs. Mental satisfaction, honour, and profit, if cared for, reward the first discoverers of the secrets of nature; riches await the men of clear sense who know how to turn the new truths to practical purposes; and in medicine, the early application of new and powerful remedies removes much human suffering that would probably have been otherwise hopeless. It is a curious psychological phenomenon, that a hard disbelief in mesmerism seems to be in proportion to the extraordinary facilities afforded to every one to satisfy himself by the evidence of his own senses. There is no 'hocus pocus' or attempt at concealment practised by many mesmerisers, whose word has never been doubted in the course of their lives, and who are well known to be neither fools nor knaves. They say to us, 'do thus,' and you will probably become as wise as ourselves; or if you cannot or will not be at the necessary trouble, 'come and see.' But people, in general,

prefer to dictate laws to nature from their easy chairs, and amuse themselves at the followers of nature chasing the shapes of their own imaginations.

"Let us leave these infallible philosophers to their dignified repose, and I hope it will not disturb them, if I hint, that those who never doubt, will little learn.

"But I beg to warn all those who have not a practical knowledge of the subject, that it is much easier to 'see,' than 'to do;' nature will not 'unsought be won,' and only yields her secret treasures to those who court her with earnestness, sincerity, and resolution.

"*'Labore et Sudore,'* ought to be the mesmerist's motto till he has produced the desired results by his personal efforts, and thereby given himself and others confidence. After this, all is easy, for any number of proper assistants may be taught to act under our superintendence, and this they do with good will and effect, having once seen the wonderful results that may be produced; any one of which will amply compensate for a hundred failures.

"The most formidable, because reasonable, argument, against the existence of mesmerism as a natural power, is perhaps the Report of the French Commission in 1779, of which Franklin was president.*

"The verdict of the 'Savans' was perfectly just, and a legitimate deduction from the evidence before them; but yet (such is human fallibility) in this case 'Summum jus,' was also 'Summa injuria'—truth was sacrificed to falsehood, as I think will clearly appear from a short analysis of their proceedings. This will probably not be time wasted, as I have heard intelligent gentlemen say, that the verdict of the French philosophers still decided their opinions. They had a series of 'Axioms of Mesmerism' presented to them, whose truth they were to examine, and the efficacy of certain processes was to be proved to their satisfaction by experiment.

"The mesmerist's object seems to have been to try to convince the commission that he had a secret worth knowing, and yet continue to keep it to himself by hiding its extreme simplicity under a load of complicated machinery and various kinds of mummery.

"Deslon, the pupil of Mesmer,† propounded his Laws of

* 1784. Franklin was not, I believe, president. He gave himself very little trouble about the matter.—J. E.

† "The supporters of the 'diabolical theory' will be glad to learn, that a 'Father Hehl' was actually the first discoverer of the new power. The alteration of the orthography of his name, was a poor 'ruse' of the arch deceiver.

* I have always seen his name spelt Hell. Hell in German signifies

Animal Magnetism, after this fashion :—

"1. 'Animal magnetism is an universal fluid, constituting an absolute plenum in nature, and the medium of all mutual influence between the celestial bodies, and betwixt the earth and animal bodies.'

"This is only a gigantic assertion.

"2. 'It is the most subtile fluid in nature; capable of flux and of reflux, and of receiving, propagating, and continuing all kinds of motion.'

The two first clauses are probable enough, and in the last he had perhaps a glimpse of motion by electro-magnetism; but to call this, or any other combination of inorganic powers, and mesmerism, identical, even at the present day, is taking everything for granted.

"3. 'The animal body is subjected to the influences of this fluid by means of the nerves, which are immediately affected by it.'

"Very possibly, we see no other way at present.

"4. 'The human body has poles, and other properties, analogous to the magnet.'

"The first proposition has never been proved; the second, only true as far as likeness goes.

"5. 'The action and virtue of animal magnetism may be communicated from one body to another, whether animate or inanimate.'

"True, as regards the relations between animate bodies, and these can also impregnate inanimate substances we are told by the best authorities.

"6. 'It operates at a great distance without the intervention of any body.'

"True.

"7. 'It is increased and reflected by mirrors; communicated, propagated, and increased by sound; and may be accumulated, concentrated, and transported.'

"Sound may possibly assist to lull the brain, but quiet is far more essential; the other assertions are borne out by modern experiments.

"8. 'Notwithstanding the universality of this fluid, all animal bodies are not equally affected by it; on the other hand, there are some, though but few in number, the presence of which destroys all the effects of animal magnetism.'

"The first part correct; the last, probably so.

"9. 'By means of this fluid, nervous diseases are cured immediately, and others mediately; and its virtues, in short, extend to the universal cure and preservation of mankind.'

clear. So that in the German lessons we have the sentence,—himmel (heaven or sky) ist hell.—J. E.

"True to so great an extent, that we do not know how far it may go. Is it surprising that the commission dismissed contemptuously such a jumble of mere assertion and nonsense, seasoned with a grain of truth? Like a Bengal witness, the mesmerist smothered his true tale in a score of circumstantial lies, till no one knew what to believe. Then again, he ruined himself and his cause, by loading the simple truth with a parcel of trumpery machinery, through which he hoped the power of nature would nevertheless penetrate.

"But nature, like an overloaded camel, turned upon her driver, and threw him and his paraphernalia of magnetic platforms, conducting rods and ropes, pianos and magnetized trees, into the dirt, and truth retired in disgust to the bottom of her well, there to remain, till more honest men should draw her forth, again to surprise and benefit the world.

"As far as my observation goes, all that is necessary for success, if the parties are in the relation of agent and subject, is *passive obedience* in the patient, and a sustained attention on the part of the operator; and the more the bodies of both are *in a state of nature*, so much the better for the success of a natural process.

"The successes I am now about to record, are mainly to be attributed, I believe, to my patients being the simple children of nature; neither thinking, questioning, nor remonstrating, but passively submitting to my pleasure, without in the smallest degree knowing my intentions. If the proud sons of civilization will condescend to return for a moment to the feet of their mother Nature, they will also benefit by her bounties.

"Children and idiots are nearly the only persons who have resisted me and my assistants, probably from their great mobility of mind and body.

"A Journal of Practical Mesmerism."

"Having satisfied myself of the existence of the mesmeric power by the experiments reported in your last number, I have lost no time in applying it to practical purposes. The effects are nearly as various as the different individuals acted upon, but divide themselves into three prominent conditions: simple somnolence, semi-insensibility, and total insensibility or coma. Of these I will give a sufficient number, collected during the last month, to prove how common all these states are, and that all are eminently useful in combating different diseases.

"Simple Somnolence.

"April 7th.—Janokee Sing, a chuprassie, aged 30, a hardy-looking man. Totum scrotum cum præputio are sloughing from the application of some acid leaves. Pain most intense. I foolishly wasted myself in trying to mesmerise him for an hour, but with no effect.

"April 15th.—Totum scrotum has sloughed off; has had no sleep since he came to hospital. The compounder, a healthy, intelligent Hindoo, succeeded in putting him to sleep to-day, in half an hour. He awoke when called upon or pinched, but instantly fell asleep again.

"April 16th.—Slept from 11 a.m. yesterday till 5 p.m.; took his dinner at 6 o'clock, immediately after went to bed, and slept till 7 o'clock this morning, the only rest he has had since he was burned.

"April 19th.—Mesmerised daily since the 16th, with the same results; every time it becomes easier, and a few minutes now suffice to overcome him. Nothing else worth remarking.

"April 20th.—Kowsoolla, aged 40, a peasant woman. Had her breast and an axillary gland extirpated, three weeks ago, for cancer. There is only a skin wound now. I subdued her in ten minutes to-day for the first time. She awoke when called upon, but in a second fell asleep again; the limbs are quite loose, but when I fix them for a minute in any position, they remain in it, and require to be dragged into a new attitude. The muscles yield precisely like lead, without a vestige of re-action when the bending force is removed.

"April 25th.—She can now be mesmerised in a minute, nothing new elicited.

"April 20th.—When at the hospital to-day, the Mussulman compounder came and said, that he had put a woman to sleep in the female ward, and that he could not awake her. Went to see; found it true, and took the opportunity to inform every one about the hospital, that if any one dared to attempt this again, without my orders, he should be instantly dismissed, and hanged into the bargain, if the patient never awoke again. I hope this will check experimental mesmerism.

"May 3rd.—Bissummer Chowdry; *urina non reddita* for three days. The vesica is prominent at the navel; no catheter can be introduced; a quantity of pus came away with the instrument. Ordered to lie in the easiest posture, and to be put to sleep, if possible. Slept for several hours, and *urinam abunde reddidit* when awoke.

" May 11th.—There has been no return of the stoppage.

" May 4th.—A prisoner, convalescent from cholera, has been tormented with incessant hiccough for 24 hours.

Opii. gr. ij. Conf. Arom. gr. x. ;

If this does not check it, a blister to be applied over the diaphragm.

" May 5th.—No better. To be mesmerised.

" Returned after three hours, and found him asleep : awoke him ; has no hiccough.

" May 11th.—The hiccough has not returned.

" Semi-insensibility.

" April 20th.—Jeelal, my Dhubie, aged 35, has been eighteen months ill, first with dysentery, afterwards with rheumatic fever, in consequence of which his left knee is bent at a right angle upon the thigh. I considered him to be a hopeless cripple.

" I mesmerised him to-day in a quarter of an hour. At first he supported his knee with both hands, but soon allowed me to remove them and suspend them in the air. The leg was then gradually extended, and straightened to a considerable extent, without awaking him.

" April 21st.—Process repeated to-day, and more force used, which awoke him ; the leg still farther improved.

" April 22nd.—The pulley was used to-day, and very considerable power applied before he awoke. The muscular contraction of the extensor and flexor muscles of the thigh is now nearly overcome, and the remaining stiffness of the knee seems to be from the tendons and ligaments about the joint, and will probably yield to mechanical extension by exercise.

" May 11th.—He can now walk without a stick, but the fibrous contractions give way slowly. I am convinced that direct force might have torn the muscles of the thigh, but could not have relaxed them.

" April 23rd.—Ramchunder Sircar. Saw him for the first time to-day, at 11 o'clock, A.M. He has got elephantiasis scroti. The tumor is twice the size of a man's head.

" I put him to sleep, and made his arms cataleptic in three quarters of an hour.

" Pricking and inhaling ammonia, disturbed but did not awake him ; I therefore proceeded to operate, but he awoke after I had slit up the præputium. I therefore desisted, and will try to educate him into insensibility.

"April 27th.—Has been easily mesmerised daily since the 23rd. Is not insensible to pain, but it does not awake him, and I could not afford to spend more time upon him, and therefore re-commenced the operation. I pulled him by the legs to the edge of the table, and allowed the tumor to hang down unsupported; then bent his knees, and put his feet in the attitude for lithotomy, and in this painful position he remained for half an hour without moving.

"His legs and arms were then properly disposed of, in case he should awake, and the tumor quickly removed. The first incisions did not awake him, but he was soon thoroughly roused. This imperfect insensibility was a great comfort to the patient, and gave great facilities to the operator.

"Testiculus unus adhered to the fundus of the tumor, and was sacrificed.

"The mode of operating was that described in this Journal for Sept. 1844, and though different from that adopted by several practised operators, I have seen no reason to change it. It is very simple and expeditious, and the wound is sometimes healed in one week instead of six.

"May 12th.—Buxoo Khidmutgar. Fistula infra colis glandem intra urethram desinens; the glans colis is sloughing, and requires to be amputated. I desired him to be mesmerised, and returned in an hour. Found him asleep, and while looking at him, he awoke with a start, but immediately went to sleep again, and in five minutes after *I cut off the glans colis without giving him any pain*. He awoke a moment after, but said it was from fear, not pain.*

"Total Insensibility or Coma.

"May 13th.—Mádub Kaurá, my first patient, reported on last month. This man can now be catalepted in less than a minute, and the effects are passing strange.

"If I point my fingers at him for a few seconds, his eyelids begin to droop, and if standing, his arms fall by their mere weight to his side; his whole body begins to tremble, shewing the loss of command over the muscular system, and if not supported, he would fall down in a heap. But support him for a minute, and he becomes as rigid as a statue, and if

* This fact in another quarter of the globe is worthy of remark. The pulse may be heightened under a perfectly painless operation, as I noticed in a case of my own recorded in Vol. II., p. 109. The patient whose leg was the first amputated in the mesmeric state, is described by Messrs. Topham and Ward to have moaned in his sleep though he felt nothing; I have no doubt that he feared, and dreamt through fear.—J. E.

the centre of gravity is well poised, he will remain in any posture he is put in longer than I have waited to see; but if there is any deflection from the perpendicular, he would, it is evident to all, knock his brains out against the floor. However inconvenient or grotesque the position may be in which he is put, he remains passively in it till the muscles yield gradually like wax, if there is any incumbent pressure. When that is removed, they cease to yield, and remain 'in situ.' He is quite easy and comfortable with his heels behind his neck, and if his forehead is applied at an acute angle against the wall, he remains like a wooden prop longer than I have ascertained.

"On awaking, which is usually in three or four hours, he always says that his head 'turns,' and that he feels drunk; a sensation he is familiar with from the privileges of his caste.

"April 20th.—11 o'clock a.m. Kangalee, a peasant, aged 20; weak, and ill nourished. He had a fever four years ago, after which sores broke out in different parts of his body, and have left large cicatrices like burns.

"There is one around the left elbow joint, which has permanently contracted to this extent for seven months. He was catalepted in twenty minutes; a bottle was then placed under his elbow for a fulcrum, and the arm gradually extended by depressing the hand. He moved uneasily, and the muscles contracted occasionally, but soon melted under my hand, and I left him with his arm perfectly straight, and extended in the air, and still asleep. Two o'clock p.m., he awoke half an hour ago. Sees his arm is straight; knows not how it was done; has no pain; can move it freely.

"May 2nd.—He pulls the punkah daily with the left arm for exercise. No return of the contraction.*

* Surgeons ought to consider this at any rate an important cure, however insignificant or undesirable a thing they, with Dr. Copland, may regard the prevention of pain in surgical operations. The noble spirit which (as all future generations will with amazement read) led the Medical and Chirurgical Society of London, containing the heads of London surgeons, to set their faces with such scorn against the invaluable fact of an amputation without pain that they madly would not allow a trace of the account to remain upon their minutes, while as professing Christians they might have been supposed by silly philanthropists to be likely to catch at the faintest chance of mitigating human suffering, renders it impossible for me to think of calling the attention of operating surgeons to the painless character of the operation. But this contraction of joints from scars is treated by a most painful cutting operation, which too often fails of its object, *discrediting* surgery; and I assure the London hospital surgeons that it is only on the latter account, and to lessen their trouble, that I take the liberty of calling their attention to the case.—J. E.

"May 5th.—Ramtoonu Buttachargie, a Brahmin, aged 40. Saw him for the first time at 11 o'clock a.m. to-day. There is a prodigious fungus hæmatodes protruding from the left elbow joint. A swelling took place at the joint when he was five years old, and has gone on increasing gradually, but the skin remained entire till an incision was made by a native doctor, twelve days ago, when the bloody mass started through the integuments. It exactly resembles the contents of a large old aneurysm, the structure of the fungus having been disorganized by the actual cautery applied all over it to stop the bleeding; it is a frightful mass. I desired him to be carefully mesmerised, and went to Chinsurah to consult with Dr. Elton, in charge of the troops there.

"We returned together to the hospital at one o'clock, and found him in a profound slumber, and decided to *take off the arm instantly. It was removed without his moving or complaining, and Dr. Elton assured me that his countenance remained perfectly tranquil.* He awoke immediately after the limb was off, and declared again and again, *that he was aware of nothing being done to him till he awoke and saw his arm was off, and he then saw Dr. Elton for the first time.**

"May 13th.—Is doing well.

"May 11th.—Meeroolla, a jail burkundanze, aged 28, strong and healthy-looking, begged me to take off a fatty tumor of his right mamma to-day, as he was ashamed of it. I desired him to lie down, and let me carefully examine it, and commenced mesmerising him. In ten minutes he was fast asleep; in five minutes more, *I transfixed the tumor with a hook, drew it up from off the muscles, and cut it quickly out without disturbing him, and he did not awake till half an hour afterwards.* He declares, *that he felt no pain till he awoke, and remembers nothing after my hand was placed on his stomach, which was in about five minutes from the commencement.*

"May 11th.—Podoo, a young Hindoo woman, has a swelling over the false ribs of the right side requiring to be opened.

"I desired the compounder to mesmerise her, while I

* It is really lamentable to think that this Asiatic practised imposition as boldly as the French female in Europe. The olive-skinned of India, however, was convicted through the self-same piece of ignorance. He too was unaware that he ought to have moved his right elbow-joint if he felt nothing while his left was cutting off; and so did not stir it. The dark races are just as wicked and just as ignorant of physiology as the white.—J. E.

was engaged with the last patient. She was ready before I was.

"A deep incision, an inch long, was made into the tumor, without awaking her, and I left her sleeping.

"May 14th.—Madub, a healthy looking cooly, aged 30. Saw him for the first time to-day, at 11 o'clock, A.M. He has got a sore on the heel of two years standing; the skin is half an inch thick, and separated from the subjacent parts all round, and requires to be removed. To be mesmerised in my absence. I went on to Chinsurah, where I had the pleasure of being introduced to the Rev. Mr. Banerjee, who is there on a visit. He begged me to gratify him by permitting him to see a person under the mesmeric influence. I replied, that I disapproved of experimenting with so formidable a power to gratify mere curiosity, but I had left a man under the process, and that if he would be good enough to go to the hospital, on chance, he might possibly be satisfied.

"I returned to the hospital after an hour, and there found the Rev. Mr. Fisher, the Rev. Mr. Banerjee, and Mr. Money, the collector, and my patient who was fast asleep. I immediately commenced dissecting the thickened cartilaginous skin from the plantar fascia, which was very difficult from its thickness and hardness, being almost like a horse's hoof, and *the operation must have been very painful under ordinary circumstances. The man however was completely insensible to pain, and remained asleep for a quarter of an hour after I had finished.* Mr. Banerjee then questioned him in Bengalee regarding his feelings, and he protested that he felt nothing till he awoke. Most of the patients mentioned in this report being in hospital, Mr. Banerjee examined them in Bengalee, and I believe, that in no particular they gave a different account of their feelings from what I have described.

"In no instance have I got any irregular or wonderful mental manifestation; as long as the patients could speak, they did not exhibit any alteration in their ordinary language or ideas.

"As to 'physique,' men are nearly the same all the world over, and an universal law of vitality reduces all to the level of animals, and the cooly may therefore be able to mesmerise the philosopher.

"But the difference in 'morale,' not only between races, but in individuals, is so immense as to amount to a total want of sympathy or even mutual repulsion, and my patients and I, have perhaps too few ideas in common to admit of mental sympathy between us. But I am getting into the

region of theory, and facts are my present business. If more are needed, they will probably be forthcoming till your readers cry, 'hold! enough!' For I will not allow this great and beneficent spirit to remain idle.

"I am,

"Your obedient servant,

"JAMES ESDAILE, M.D.

"*Hooghly, 14th May, 1845.*"

It appears that Dr. Esdaile has since this account performed another painless operation. In the Calcutta newspaper called the *Englishman*, of Nov. 8, we read, "Dr. Esdaile has removed a tumor weighing 80 lbs. without the patient's knowledge! He has found it vain to argue with people who would not believe the evidence of their senses, and says he will, therefore, 'supply facts, till the answer to all objectors will be, it is no 'use talking, the thing is so, and is daily taking place,—if life and death are true, so is mesmerism.'"

Mr. Tomes, whose removal of teeth in the mesmeric state induced by Dr. Ashburner is recorded in vol. ii., p. 107, lately to my knowledge refused to remove a lady's teeth in the mesmeric state till a promise was given that his name should never be divulged: a dentist in a cathedral town, where the idea of satanic agency flourishes, refused to extract a tooth till the sleep-waker was awakened; and the sleep-waker was positively awakened that he might pull out the tooth!—another dentist declined in the same circumstances so long that the sleep-waker, when he consented, refused in disgust to allow him to go near her, and Mr. H. S. Thompson, a private gentleman, operated himself. Mr. Thompson writes thus to me: "I took the pliers and extracted the two stumps myself, the patient smiling the whole time, and never shewing that she felt even any unpleasant sensation, and, on being asked, said that she felt exceedingly comfortable; and, when awake, she did not know at first that the operation was over, or who was the operator: she never even felt the mouth tender afterwards."

Let the medical profession be assured that the fulness of time is at hand, when the voice of *all* ranks of society will compel them to desist from their discreditable course, and act as if they were men of intelligence and humanity.

JOHN ELLIOTSON.

VII. *Cure of Fits with Mesmerism.* By MR. VIVIAN.

JOSEPH SHAPTER had been living in my service as hind or farm bailiff for several years, during which time he had been afflicted with fits closely resembling epilepsy, occurring at first very rarely, but becoming more frequent and severe, until he became quite disabled, and compelled to relinquish his occupation. He had during the last two years been repeatedly under the surgeon's hands, who procured temporary relief by the usual depleting remedies, and a large issue kept continually open on the back of the neck. His case was considered to be spinal or cerebral irritation, which deranged the whole system, causing the most intense burning pains in the stomach and chest, and neuralgia, to such an extent that he could scarcely endure the pressure of his clothes. The fits were preceded by an aggravation of these symptoms, and came upon him suddenly with all the appearances of epilepsy, recurring at shorter intervals, and with greater severity, until he was for several days wholly confined to his bed, requiring several persons to control his struggles.

On the day on which I first tried mesmerism his spasms had recurred almost every hour. During a short interval of consciousness I prevailed upon him to fix his eyes, and made the usual passes over the head and chest. In about two minutes he was in a deep sleep; the usual period passed without the slightest spasm, and he lay in so deep a trance that his wife became alarmed, and begged me to awaken him. A few upward passes completely restored consciousness. He had several hours natural sleep during the night, which he passed, as also the next day, without a spasm, and improving in every respect. At night I mesmerised him again,—he scarcely raised his eyes when he fell asleep, and lay in a deep trance for several hours. I continued the passes, and tried repeatedly to produce some phrenological manifestations, or somnambulism, but in vain. I then held one hand upon his, and placed the other upon the summit of the head, Firmness. In about ten minutes a tremulous action commenced, and his brow suddenly streamed with perspiration; he moved and spoke, answering questions, as if awake; it was however pure somnambulism. In removing my hand he sunk motionless. Wishing to try another evidence, I went into the next room and obtained a glass of water, which I drank standing behind the curtains, holding his hand in the bed; he swallowed at the same moment with myself. I asked him what he was doing; he said, "Only drinking water." I then put some salt into my mouth, which I had secreted unknown to any

one, and said, "It is strange tasted water." "You have given me salts," he replied. "No, but it isn't the medicine; it is salt-water!" He shrunk when I was pricked with a pin, &c., even when another person intervened! I relaxed his hand and he sunk into deep sleep. He awoke naturally soon after, and as he was much better, and his wife strongly objected to another *siesta* as a *dark thing* that next time might do harm, I did not again repeat it. He slept soundly next night, and in a few days was well enough to travel outside the coach to Exeter for change of air to complete his cure. His neuralgia and other symptoms wore rapidly off; within a few weeks he was in robust health, and continued so for about three months.

Circumstances of a peculiarly exciting nature then so completely overcame him, that he fell suddenly to the ground convulsed as frightfully as during the worst attacks,—the fit recurring every two minutes, leaving him totally unconscious during the intervals,—he was carried into the farm and laid upon some straw. I commenced the passes without his being in the slightest degree conscious. He lay motionless. A slight tremor only occurred at the usual intervals, which soon subsided, and he slept for nearly three hours, when I awakened him by the upward passes. He complained of headache, having lain low upon the floor. I placed him in a chair, and a few passes threw him again into a deep sleep for two hours. He then walked home quite well! I mesmerised him at night, and he has since remained in perfect health.

The manifestation of sympathy of taste, &c., were witnessed by a physician and several other friends. The cure was effected in spite of the issue having been closed, and all his former medicines discontinued, in order to give a trial to homeopathy under an able physician, who candidly admits that latterly his medicines had proved ineffectual, and he apprehended the worst results. No force of imagination can have worked the cure, as it was in opposition to the strongest incredulity and prejudice that mesmerism was tried, and in the second attack the patient was unconscious.

Mesmerism has been subjected here to a long and severe investigation, especially by members of the medical profession, who, like myself, confidently anticipated its exposure. With scarcely an exception, all are now convinced of its reality. Amongst the more striking cases, was the amputation of an arm without pain, a report of which by Dr. Phillips appeared in your last number. I can most fully confirm his statements, having been present during the whole of the operation. Of phreno-magnetism we have had some most extra-

ordinary cases, in which the character of the parties leave no room for suspicion; and the precautions which have been observed in the experiments, appear to preclude the possibility of accounting for the phenomena upon any other principle than that of direct nervous influence by contact upon the cerebral organs. At the same time, the numerous instances in which the manipulation of the organs has been disturbed by a leading question, or any other influence upon the mind of the somnambulists, without their retaining the slightest consciousness of the circumstance on awakening, calls for the greatest caution in making the trial. Few persons are now wholly ignorant of phrenology, and the touch of the organs is sufficient to suggest the corresponding train of thought: the prevailing impression, however, of those who have given the question the most attention is, that in its leading features phreno-magnetism is true.

Of clairvoyance we have had no well-attested instances.

In making this contribution to *The Zoist*, with the sincere acknowledgment that is due to its Editors for their undaunted advocacy of what appears to them to be truth, I must be allowed to express my dissent from the theories which it occasionally advocates. The accumulation of well-attested facts is all that can yet be attempted: speculative philosophy is ever prone to run counter to revealed religion, whilst inductive science as surely serves to illustrate and confirm its truth.

EDWARD VIVIAN.

Woodfield, Torquay,
Dec., 1845.

While expressing our thanks to Mr. Vivian for his valuable case, and our perfect willingness for every correspondent to write, if he chooses, under protest against whatever may appear in our journal, we must be pardoned for asserting that we advocate no "theories," or, as we conceive is meant, hypotheses. A distinguishing feature in *The Zoist* is the absence of speculation, and the observation and inculcation of fact only. Our opponents are the speculators; while we never venture beyond obvious facts. We are not aware that we ever wrote anything contradictory to "revealed religion;" for the advocacy of materialism is not contrary to "revealed religion," as is evident to all who read the Bible like such thinking men as Bishops Watson, Law, Taylor, Sherlock, &c. As to philosophical necessity, many pious Christians infer it from numerous texts. But we have never given an opinion

upon religion, nor ever will give an opinion upon it—upon *supernatural* matters. Our work is, like the Royal Society, as each new fellow is told by the president, “for improving *natural* knowledge,”—not *supernatural*; and is for Christians of all kinds, and for Jews, Turks, Infidels and Heretics of every shade; and for improving it by *natural* means, by human brain-work, not by *supernatural* aid: and we shall always investigate nature without considering whether any sect in *supernaturalism* holds our views or not on the *natural* subjects within our scope. Astronomers have insisted that the earth goes round the sun; geologists that the world must have existed hundreds of thousands of years; geographers that the earth is round and we have antipodes, in opposition to the religious world; and have benten. Potatoes are eaten because pleasant and nutritious, although condemned by certain *supernaturalists* because they are not mentioned in Scripture.—*Zoist*.

VIII. *Instances of the power of Mesmerism over Inflammatory Diseases, even in brutes; Scrofula, and threatening Consumption: and its comfort in Incurable Diseases.* By Miss Wallace, Dr. Elliotson, Mr. H. S. Thompson, Mr. Decimus Hands, &c. Communicated by Dr. ELLIOTSON.

“Homœopathy has found a convert in one of the medical professors of the University of Edinburgh, and Dr. Henderson will in future be to that lilliputian art what Dr. Elliotson is to the HUNBOLD MESMERISM.”—*LANCET*, Sept. 27, 1845.

“Mesmerism was for a time the ‘be all and end all’ of the admirable *gobe-mouches* who compose the thing we call British Society. But, unfortunately, it has of late shrunk to the dimensions of a new physiological *dogma*, curious, but of *rare curative application*. Hydrophobia, that was believed, with its wet sheet, to be as effective in ending disease as the shroud it typified, has been—we much fear—found out an impostor, ‘keeping the word of promise to the ear, and breaking it to the hope.’ The galvanic ring, that was to marry people to perpetual youth, and did typify a union with perennial *verdure*, has had a matrimonial fatality of ill success.”—*MEDICAL TIMES*, Sept. 1845.

“Quacks and charlatans still abound, and in the disguise of homœopaths and mesmerists, have even intruded on the legitimate boundaries of science. But be not deceived by these specious appearances. Men of this stamp start for a time into notoriety; but track their course, and you will find that sooner or later their career is checked. Knowledge has taken no root in them. When difficulties occur (and occur they will to all in the course of time), they wither, like the corn that was sown on dry ground. On the other hand, the man of education continues his even course, overcomes the difficulty, and gathers experience from it. With experience comes self-confidence. Self-confidence brings in its train the good opinion of the world. Character, wealth, honours, follow.—Dr. GEORGE GREGORY’S Introductory Lecture at St. Thomas’s Hospital this winter, in the chair originally filled and established by Dr. Elliotson.”—*MEDICAL TIMES*, Oct. 4, 1845.

It is a great mistake to suppose that mesmerism is of use in only what we term nervous diseases. All vital states, operations, and structures, are subject to its influence as well as the portions of the body called nervous; and we are at present utterly unable to affirm what benefit mesmerism may not effect in disease.

Many examples of the cure of inflammation have been detailed in *The Zoist*.* The following case is another. On

* Vol. II., p. 83, 84, 86, 125, 126, 239, 257, 382, 385.

Vol. III., p. 24, 101, 326.

the 18th of last July, Mr. Fradelle, of No. 9, Percy Street, brought his son to me, twelve years of age, who had been ill a fortnight. He had great pain and tenderness, with a hard circumscribed swelling and induration, without redness, of the right side below the ribs. It was a deep local inflammation of the covering of the abdomen, and had been induced by a blow in jumping. He was of course very feverish. Leeches, &c., were employed; and he was soon much better. But from moving about too much he became worse than ever, and leeches were again applied on the 29th. His debility was such that I could apply but a very small number, and but once. I endeavoured to affect his gums with mercury, and gave it very freely; but at length it excited his bowels, scarcely affecting his mouth. The pain became intense, and the swelling and induration spread to a fearful extent, upwards, downwards, even to the bend of the thighs, and across towards the opposite side. The agony was great, and almost insupportable on the least motion of his legs or body. His pulse was 140; his debility extreme; and he wasted till his bones projected. He was delirious. To procure rest, I had for some time requested his parents to mesmerise him, and this was done twice a day, with the effect of tranquillizing him, and occasionally inducing common sleep. I expected that a large abscess would take place, and every day felt for matter, but could find no fluctuation. Things grew worse, and no farther ordinary treatment appeared now possible than to support him with milk and vegetable substances, keep the part constantly poulticed, and soothe him. Things still grew worse daily,—exhaustion, emaciation, pain, fever, and the extent and intensity of the swelling and induration. He had a cough, and this increased his agony. I now suggested local mesmerism,—long passes over the part,—as the general produced no diminution of the disease: and, lest he should catch cold, this was performed over the poultice. No benefit resulted. I begged that it might be performed on the bare parts. This was done; at first without contact; and, as he became able to bear it, with slight contact; and gradually more and more, till passes with firm contact were made. He soon could bear the pressure of the whole palm, and this soothed; and whenever the hand was withdrawn sharply, he experienced a sensation as of sparks drawn from his side. When awakened by the severity of pain, local mesmerism always relieved him.

From the first day that local mesmerism over the BARED part was employed, he being then at the very worst, he began to mend; his improvement was rapid, no matter formed, all

was dispersing, and in three weeks from the first day he was well, and has been well to this hour. No medicines were given all this time : besides mesmerism, nothing was employed but a poultice.

The title of the operator in the next case I am not at liberty to disclose ; but, were it mentioned, an impression would be universally made from the Queen's Palace to Apothecaries' Hall.

"A poor woman in our village, who had had a tooth broken in her jaw by an unskilful dentist, came up to me the other day almost frantic with pain. The ———, passing through the Hall, saw her and magnetized her. *In six minutes the pain vanished, and with it the inflamed, tight, and red appearance of the cheek.* She had had this pain three days, and expressed herself frightened at its leaving her so suddenly. It has not since returned."

Mr. D. Hands has favoured me with the following communication :—

"My dear Dr. Elliotson.—I hasten to fulfil my promise of narrating a few facts concerning the sanativeness of my mesmeric touch.

"About a year ago, Mrs. Brogden, of 10, Sussex Gardens, came to my house to witness my mesmeric experiments, the facts of which were very astounding ; but, possessing a mind superior to that of the generality of *soi disant* enquirers, she feared not to speak boldly of what she had witnessed, though many thought the wonders she recounted to be impossible, or at least much exaggerated.

"One day, soon after her visit, I called upon her with my young friend Mr. Elliot, and found her sitting with her son Alexander, now a clerical student at King's College. We soon entered into conversation on the subject of mesmerism, when I observed Mr. Alexander smiling incredulously : on my questioning him, he declared that he could not give credence to all the marvellous relations he had heard, and that persons had tried ineffectually to produce any effect upon him. Observing that he held his head very stiffly, I asked him the reason ; he said that he was suffering from a large boil on his neck. I then remembered having cured the eye of a young lady (the daughter of the Rev. G. Sandby), and I asked him to let me feel the boil : he removed his neckcloth, and I placed my fingers on it ;—in five minutes his head was

quite at liberty. He turned round, and, looking in the pier-glass, he exclaimed, 'This is proof positive.'

"I saw him the next day and touched the boil again. He had not felt any pain or inconvenience from it since the time that I had touched it on the previous day, nor did it return afterwards.

"About two months after this, on January 6th, 1845, the father of this young gentleman, Mr. Brogden, sent for me to attend him professionally. I found him suffering from vesicated erysipelas, spreading from the roots of the hair down the forehead, covering the eyes, nose, and cheeks. I placed my fingers gently on the parts, when the swelling immediately gave way, and he who had been previously incredulous, now exclaimed in astonishment, 'It's going, it's going;' and in less than ten minutes it *was* all gone.

"I saw him the next morning, when I found that the swelling had collected into nodules here and there, but they all disappeared instantly from beneath my touch. On the third day he went down stairs into the dining-room to tea with me, and sitting near the fire, he said the heat was bringing the swelling back again. I just set a screen between him and the fire, and placed my fingers on the affected part, as I had done before: from that time he experienced no further inconvenience from it. I had likewise applied mesmerised water as a lotion, but found that it was unnecessary.

"On the 14th of April, 1845, I was called to attend Mdlle. Alexandrine, residing at 30, George Street, Hanover Square. I found this likewise to be a case of erysipelas, covering all the face and one side of the head and neck, down to the shoulder. She had been in a delicate state of health for some months previously; and when I entered the room, I found her crying from pain. Some little time had elapsed between her having sent for me and my visit, owing to unavoidable engagements, and consequently there had been an increase of pain.

"I immediately laid my finger gently on the affected parts. At first she shrunk from the touch, the parts being so exquisitely sensitive; but in less than a minute I could press it hard, and in less than five minutes the pain and tension were quite gone.

"I left her free from pain; but, on visiting her the next morning, I found that the swelling and pain had returned: they however quickly subsided on my recurring to the same treatment as on the previous day.

"I continued the application of pressure with my fingers as often as the swelling returned, until the cure was completed, which was within the week.

"On the 30th of May, I was again sent for by Mdlle. Alexandrine: she was then suffering from a large carbuncle forming on the back of the neck. Had I not proved mesmerism to have been successful in such cases, I should have made a crucial incision; but now, placing my fingers around the base of the swelling, and using gentle pressure, I found it subside; and the sensation I experienced then and in all similar cases, is like the gentle melting of snow on the application of heat. A few days subsequently a small core, about the size of a large pea or a horse-bean, came out, and no further trouble was experienced.

"January 24th, 1845. I was attending Mrs. Soundby, 13, Brown Street, Edgware Road, when her husband asked me to look at his hand, which had been slightly burnt some time before, but of which he had taken no notice, and now, instead of healing, it had become a troublesome sore. I touched it, and kept my fingers upon it for half a minute. When I went home I sent him some ointment, but before he received it his hand had become quite easy, and therefore he never used the ointment. He was not aware of my reason for touching his hand, but he expressed his astonishment that it should be well so soon after my having seen it.

"Some time since I was mesmerising the son of my esteemed friend, the Rev. J. Dixon, D.D., who was in rather delicate health. One morning I found him with his hand covered with flour, having burnt it rather severely by falling with his hands on the bars of the grate. I proceeded to mesmerise him as usual, without any reference to the burn. He did not lose consciousness, although he closed his eyes. After a few minutes I awoke him, and then perceived that he was much less careful about his hand. I asked him how it was, and he replied that the pain was quite gone.

"A week afterwards I was again at Dr. Dixon's, and was asked to look at Miss Dixon, who had a swelling on the side of her face. I found it to be a large gum-boil, and said that I would open it on the following morning: but her brother said, 'Could you not mesmerise it away?' I replied, 'I will try,' and then proceeded to apply my fingers to the swelling, in the usual manner and with the same success.

"Nov. 22nd. Mr. Alexander Brogden called upon me, accompanied by a friend and fellow-student, Mr. Brookes, of 63, Queen's Road, Bayswater, who had a large axillary abscess forming, which was very painful. I bid him take off his clothes, which he did very carefully and with much pain. I pressed my fingers on the swelling, and brought it down the inside of the arm as far as the elbow, supposing that the absorbents would carry it away: the pain was relieved, and he could use his arm quite well and with ease. However, I think it was an error to bring the swelling downwards, for when he came on the next day it was spread over a large surface; but this disappeared on the application of pressure as before. On Monday, the 24th, he came again, and I had recourse to the same measures, and apparently, and likewise to his feelings, succeeded in relieving him, and, as we thought, effecting the cure. But on Tuesday, being the fourth day of my attendance, I found that maturation had been accomplished in the gland, and I opened it and gave vent to a small quantity of matter: I then desired him to go to bed, and remain there until I saw him; but on my calling on the next day, he was out, and I have not seen nor heard of him since.

"Dec. 22nd. About ten days since I received a visit from Mr. Sommers, of 10 James Street, Oxford Street; he was much alarmed, having a large furunculus pressing on the trachæa and œsophagus, rendering breathing and swallowing difficult. I placed my fingers in the customary manner around it, and used gentle pressure which made him complain at first, but it quickly became easy, the swelling subsided and he returned home free from pain, and feeling quite comfortable. He had previously applied a pitch-plaster, which I told him to take off, but the removal of it caused the swelling and soreness to return; he therefore called upon me again the next morning, when I again made use of the same means and succeeded in dispersing the swelling &c., which have not since returned.

"These are a few of the cases in which I have succeeded in effecting cures by means of mesmerism. I could furnish more if they should be thought of sufficient interest for publication.

"And now, dear Dr. Elliotson, allow me to avail myself of this occasion to give expression to my grateful feelings for all the many kindnesses I have received from you, and to acknowledge the great advantages I have derived from your instruction and example.

"It was after hearing a lecture from you at the North Lon-

don Hospital, that I determined to follow your example in practising mesmerism.

"I have cured numbers of persons of different ailments, all of whom have reason to be grateful that ever you had the courage to avow and carry out into practice your convictions on the subject of mesmerism. I am constantly amazed and delighted at the grand and blessed effects of its great power, and I wish that I could make all the world as grateful as I feel. Time will bring light, and conviction must follow.

"But some will not believe because they cannot understand what they possess not; their little minds are too full of prejudice to admit light and truth, and they go to the investigation with a predetermination that they will not be convinced. So has it been in all generations: if this needed proof we should only have to turn to History's page and there find recorded all the malevolence which attacked a Faust, Galileo, Columbus, Jenner. But all those names are now remembered with reverence, while the wasps that stung those noble benefactors are as if they had never existed. And so, dear Dr. Elliotson, will those who have maligned and opposed you, be compelled to admit to their own shame and confusion, that you have brought real blessings upon mankind, and your memory will be grateful.

"It is with gratified feelings that I subscribe myself,

"Your very grateful, humble servant,

"22, Thayer Street,
"Manchester Square."

"DECIMUS HANDS.

Miss Wallace has favoured me with the following:—

"Laurel Lodge, Cheltenham,

"Dec. 23, 1845.

"Dear Sir.—In support of the great truth you have so ably advocated and finally *established*, permit me to offer you for insertion in *The Zoist* a few cures lately effected by me, through the medium of mesmerism—that most blessed 'gift of God' to man.

"To persons unacquainted with this wonder-working power, the two cases of scrofula must appear so marvellous, that I could not expect them to obtain credit, had I not enabled any one to satisfy themselves of their truth by furnishing the names and address of all the parties referred to.

"The Marquise St. Milan Tecman, and Mr. Hicks, are performing most astonishing cures here, in cases pronounced incurable by the medical profession.

"I earnestly hope that you may be spared to see the professor's chair at University College filled by a mesmerist, and your prediction accomplished,—That the time would come, when no surgical operation would be performed without previously attempting to produce mesmeric insensibility.

"I remain, &c.,

"ELIZA WALLACE.

"Anne Holland, aged 17, was afflicted with scrofulous ulcers in the throat.

"About nine months ago these were healed, and the complaint shortly after attacked the elbow-joint, and for six or seven months she had little use of her arm, and suffered severely from pain, swelling, and inflammation.

"On the 18th of November, she brought me a note from her mistress, Mrs. Rodway, of Gloucester Place, requesting me to mesmerise her. The poor girl wore her arm in a sling, and assured me the pain was so violent, that it had prevented her sleeping for the last three nights.

"After the application of local mesmerism for about fifteen minutes, she declared, with considerable alarm, that her whole arm was '*quite dead*;' and, although she felt the *touch*, she felt *no pain* from the *prick* of a pin in the arm, but could not bear it on the hand.

"In half an hour the swelling was nearly gone, the pain had *entirely* subsided, and, after I had restored sensibility and taken away the rigidity that had ensued, the *perfect use* of her arm was restored.

"I did not see her again until the 20th, when she told me she had slept well, and had no return of pain, but for about half an hour that same evening. On examining her arm, I found the swelling *entirely* gone, but could not produce any rigidity, and she only felt a slight degree of numbness from the shoulder down the arm.

"Anne came again on the 24th, when she told me her arm was as well as it ever had been in her life.

"On the 26th I saw Mrs. Rodway for the first time, who confirmed all Anne's statements, assuring me that for six or seven months past her sufferings had been *most acute*, and that her arm was nearly powerless, she being obliged constantly to hold it close to her side in a horizontal position; adding, that her sudden cure excited the greatest astonishment in all acquainted with her previous sufferings.

"Mary Adams Rodway, 2, Gloucester Place,

"Ann Holland.

"Second case of Scrofula.

"James Edwards, aged 11, was sent to me, on the 8th of December, by Mrs. Georges, Confectioner.—His mother showed me a sore in the neck, which she told me had been open about six months, and had resisted all the remedies applied at the Hospital to heal it.

"The complaint had also appeared in the nose and lips, which were much swollen and occasionally very red.—I mesmerised the child without any visible effect, and gave him mesmerised water to drink and bathe the sore.

"When he returned the next day, it looked better, and discharged less.—The third day it was *entirely healed*, but the nose was a good deal swelled. I directed bathing with mesmerised water, and in two days scarcely any swelling remained.

"(Signed) C. George,
T. Edwards and S. Edwards.

"Allow me to add a case of head-ache, &c.

"Sara Edwards, aged 8, had tape-worm for five years, and suffered from *constant*, violent head-aches and pains in the stomach. The head-ache I removed in a few minutes on the 10th December, and from that day she has had *no head-ache*, and the pains in the stomach are much relieved:—indeed, for four days past she has never complained at all, and has now a good appetite: 'though for the last two years she has not eat enough to support a bird,' her mother says.

"Signed by the father and mother of the patient,
"John and Sarah Edwards.

"December 23rd, 1845."

The following account I have received from Mr. H. S. Thompson:—

"My dear Elliotson.—I send you Colonel Croft's case, and none of the parties object to their names being attached to it if you should think it worth printing.

"It was on Saturday January 11th, I found my friend, Colonel Croft, seriously ill, with the following symptoms. Acute pain in the right side, great difficulty of breathing, short dry cough with no expectoration, foul dry tongue, violent pain in the head, and symptoms of delirium. Pulse not extraordinarily high or full. The medical man in the village in which he resides was attending him, but thinking the case very serious, I urged the family to call in Dr. Simpson, of whom I knew they had a high opinion. This was done, but

Dr. Simpson was not able to attend until the following day, Sunday. On the Saturday I mesmerised him by his own desire. He said that he felt much better afterwards, and that he was quite relieved from the pain in his side and head. His respiration I also thought slightly improved, but it was still distressing.

"On Sunday I saw him a few hours after Dr. Simpson. I was told that he had pronounced the case a very serious one, and that he thought that if expectoration did not occur shortly that he would not recover. I found all the symptoms with the exception of the pain in his side much aggravated. Great pain in the head, at times quite delirious, the tongue very foul, dry, and dark-coloured, and the breathing much more laboured; his skin dry, cough short, hard, and with no expectoration. I placed one hand upon his head, and made passes over him with the other, and within a quarter of an hour from the time I commenced mesmerising, he broke out in a profuse perspiration, and said that his head felt quite relieved. I mesmerised him for an hour, which removed the pain in his side, and he was not delirious for some hours afterwards. Two or three times during the night he was uneasy and restless and complained of great pain in his head. I was able always to relieve him of this, and to soothe and tranquillize him in a few minutes. Tuesday, the following morning, Dr. Simpson pronounced him so much better that he began to hope for a favourable issue, if only expectoration could be induced. I was obliged to go home after breakfast, and did not return till the evening, and found that he had become restless and uneasy, the symptoms all worse, no expectoration had taken place, and the Doctor declared his recovery to be very doubtful. I remained with him during the night and mesmerised him occasionally. His night was more composed than could be expected, and I thought he was no worse at all when I left him at 4 o'clock in the morning. I was informed that he became restless, his breathing very laboured, and he was delirious and moaned in a distressed manner afterwards. Whilst I was at breakfast at 9 o'clock, I was sent for as he was supposed to be dying. I found him in a state of syncope, and quite insensible to what was going on around him. I placed my hand on his head, and making passes over him he soon revived, and continuing the mesmerism for some time his recollection appeared completely restored. He complained of violent pain in his right side. After mesmerising the right side for some time, the pain removed to the other. I got a gentleman who was present to mesmerise the left side, as I felt somewhat exhausted; in an

hour he was perfectly free from pain. Dr. Simpson was not able to attend on Wednesday in the morning, and left word if there was any change for the worse that Dr. Goldie was to be called in. That gentleman was sent for accordingly, and arrived about two hours afterwards. He considered the case so hopeless that he said there was no use whatever in attempting to make any change in the treatment. However the patient gradually rallied. He was informed of his danger; it did not appear in the least to alarm him, and he requested his man of business to be sent for; and I feel certain that mesmerising him made him go through the necessary exertions much better than he otherwise could have done; indeed he was quite incapable of attending to any business until I had mesmerised him. Dr. Simpson arrived in the evening and pronounced him better than on the previous evening. He had an easier night, slight expectoration came on, and on Thursday he was decidedly improved. From this time until the following Thursday there was a gradual change for the better, though with many intermissions; and on that day he was pronounced out of any immediate danger. I remained with him during the whole time, mesmerising him whenever he was uneasy or uncomfortable, or in any pain; he always expressed himself as relieved at the time and seemed better. Dr. Simpson of course sanctioned my mesmerising him. But as there were no means for his recovery *secundum artem* left untried,* it is not for me to say that he received more than temporary relief from mesmerism, and I merely relate what exactly occurred, and which I noted down at the time.

"The patient was perfectly unconscious afterwards of all that had happened from the Saturday, when I first saw him, to the Thursday, the week following, and has no recollection whatever of his ten day's illness. He has had most excellent health since, and seems as hale and strong as ever, though 70 years of age."

"Last winter I tried the power of mesmerism in inflammation on two horses.

"The first had got cast in the stall, and had severely injured his eye. There was great inflammation, the eye-lids were closed and very much swollen, and the eye seemed seriously injured; the cornea quite opaque. I mesmerised the eye by

* I would here observe that the medicine prescribed was most regularly administered, excepting on the Tuesday night and on Wednesday until the evening, during which times, a period of nearly 24 hours, the patient, being at the worst, was unable to take any medicine. But he was constantly mesmerised, and seemed *gradually to rally as the process was carried on.*

passes over it for half an hour, when the animal opened the eye and the inflammation was considerably abated. The first ten minutes the horse did not seem to experience any sensation; afterwards, however, it was evident that it did so, as it slightly twitched its head away every time I passed my hand over the eye, although I did not touch it, but made the passes at a few inches distance. The operation was repeated by my groom that day, and twice the following day, when all swelling had subsided, and there was no signs of inflammation, merely a white streak across the cornea, evidently from the severity of the blow, and which was some months before it was quite obliterated. No other means were used at all for its recovery.

"The second was a horse who had a severe cut on the back sinew of the fore-leg. There was great inflammation in the leg, and the horse, from pain, had not placed his foot firmly on the ground from a few hours after the accident. On the third day, I made passes down the leg at the distance of about an inch from the leg, continued the process for little more than half an hour, when the leg was considerably cooler, and the horse placed the foot flat and firmly on the ground.

"I have tried no other experiments of this kind on brutes."

The following also was kindly sent me :—

"Fairfield, near York,
"26th Nov., 1845.

"Dear Elliotson.—You asked me to describe those cases with consumptive symptoms which have come under my notice. The following, with the exception of one, have been mentioned in *The Zoist* before, and therefore I shall but briefly notice them. The first was the case of the boy, John Bradley, who was suffering from a diseased knee. His pulse was 130; hectic, a short cough, much emaciated, and *his lungs were declared to be diseased by his medical attendant some weeks before I commenced mesmerising him*. All these symptoms were removed after the third time of mesmerising him; nor had he any return of them, though twice, since his case was mentioned in *The Zoist*, he has had the misfortune to injure his knee accidentally, which brought great inflammation, pain, swelling, and in one instance, suppuration and discharge; all of which I was again able to remove by mesmerism alone: and there cannot be apparently a more healthy boy, although his knee will always be deformed, and he must be lame; still

it is firm and hard, and there are no ulcerations, and he daily gets more use of his limb.

"This patient was never but once in a mesmeric sleep, and no visible effect ever produced by the passes, yet I have not met with one instance where pain was so readily and instantly removed.

"The boy has always expressed himself as feeling the effect strongly. The feelings he described were those of a warm glow all over, and as if I touched him gently when passing my hands over him; that of pressure if I advanced them towards him, and a pulling or drawing sensation when I drew them from him. The operation, if continued long enough, gave the feeling of great heat, and produced perspiration.

"In the case of Anne Beane, before mentioned, the symptoms were as follows. *Great debility, emaciation, extreme nervousness, profuse night perspiration, spitting of blood, a pain in the chest and left side, and a very rapid pulse.* She was very readily mesmerised, and experienced great relief from mesmerising the chest and back. The pain was quite removed the first time. She had a return of pain some hours afterwards, but slighter. In *four days* all these symptoms were nearly removed; and she rapidly began to gain strength. She has left her situation a short time since, but for a year and a half she had no relapse, and I believe continues quite well.

"The third case that I have met with was a young lady, the daughter of a friend of mine.

"She was in the last stage of a consumption, unable to walk, or scarcely move; from weakness. The effect of mesmerism for the first fortnight was astonishing. She improved rapidly in strength, and was free from pain. She had suffered much before I saw her; and the expectoration, which was profuse, nearly ceased: her nights were quiet, and I almost began to indulge a hope.

"She, however, had a severe attack of pain and coughing one night, and the expectoration became as profuse as before; but *I was enabled to keep her free from pain, generally in good spirits, and without that sense of extreme weakness* (which she had suffered so much from before) *to the last*; and she died, without a struggle, six weeks after I commenced mesmerising her.

"*I found, that if I omitted mesmerising her for a day, the cough was troublesome, and the pain would return.*

"In all these cases that I have mentioned, I found great effect produced on the circulation.

"In the two last cases, the pulse of the patients in a mesmeric sleep felt at least 20 beats in a minute.

"Ever yours, most truly,

"HENRY S. THOMPSON."

In connection with Mr. H. S. Thompson's cure of inflammation of the lungs, I must send you an extract from a note which I received from Mr. Case, of Fareham, two months ago:

"I have had a severe case of bronchitis in an infant seven months old, where the difficulty of breathing continued after the employment of blisters, leeches, &c., in which I used mesmerism; and it appeared to me that in less than five minutes after commencing its use, that the breathing was much better, and after a time the child was in a quiet natural sleep. This followed immediately after the use of leeches; and, though I believe mesmerism to have been of the highest service, yet I would not put it forth as a case for sceptics."

Relief in hopeless states.

A large part of medical practice with drugs, and regimen, and mechanical means, consists of attempts not to cure, but lessen human suffering without any hope of cure, and to smooth the way to death; and with all their efforts, what are not the sufferings of those on whom these attempts are made! Let not the medical man despise mesmerism because many cases resist mesmerism; they ought to rejoice if they can assuage by so easy and innocent a method—neither painful, harrassing, nor nauseous, as too many of the established means are.

The last of Mr. Thompson's cases comes under this head, and the next is a parallel to it.

"Norwich, Jan. 28th, 1845.

"Dear Sir.—I am requested by Mr. Gilbert, a patient now under my care, to consult you as to any mode of treatment you might be able to advise in, I fear, a totally hopeless case of pulmonary phthisis, and, I may add, in its last stage. But as you are fully aware of the peculiar longings such patients occasionally manifest when any ray of hope has been extinguished in the medical attendant, you will be able to understand that this letter is written, not so much with any expectation on my part or that of his friends that anything can, under the circumstances, be done to save his life, but rather with a view to calm the last few days of his existence.

Indeed, the patient above named has expressed a wish to see you personally; but, knowing the value of your time, and the not-over-abundant means of his relatives, however agreeable to myself a personal consultation would be, such an idea is superfluous. The symptoms are as follow. Cough with muco-purulent expectoration, hectic sweats, great emaciation, extreme debility, and increasing irritability of the intestinal canal. The stethoscope furnishes the usual characteristic signs: cavernous ronchus with pectoriloquy, and the peculiar gurgling sound indicative of tubercle in a softened state; percussion dull upon the supra-clavicular regions, especially on the left side, and the usual fluttering on this part of the chest. It would be useless going further into detail in the above case. I can only add, that any suggestions you may be able to offer will receive every attention from

“Your’s faithfully,

“To Dr. Elliotson.

“GEORGE CHATER.”

I replied that the case must of course end fatally, and that I could suggest nothing more than the gentleman had done, unless there was no objection to try mesmerism. I subsequently received the second letter.

“Dear Sir,—I am sorry to say my patient, Mr. Gilbert, is no more; he expired on the 3rd of the month, fully confirming my previous diagnosis. As you did me the favour to say you should be willing to hear of the progress of the case in the course of a fortnight, I take this opportunity of not only informing you of the unsuccessful issue of the above case, but will venture an opinion upon the course of treatment you were so kind as to suggest. Under the hands of an experienced mesmeriser (Mr. Dodman) of this city, and under my own inspection, I must say he was *much soothed and tranquillized, and had intervals of quiet refreshing slumbers, such as for some weeks he had not known*. He expressed himself much pleased with the process, and *longed for the time of its repetition*; and although I could plainly see as a remedial means it was of no avail, still from what I have witnessed in the above case, I shall certainly bring mesmerism to bear upon cases of a similar nature. You will understand this is saying somewhat for an unbeliever heretofore in the *process* or *art* of the so-called science. I imagine I can trace the principle upon which it acts, and therefore feel more confidence in not only recommending the process, but if need was in attempting it myself.

“Feeling under obligation, for your suggestions, and a

duty to use all means to relieve the sufferings of others as far as in me pertains, mesmerism among others, with many thanks,

"I remain,

"Faithfully yours,

"Norwich, Feb. 6, 1845.

"GEORGE CHATER."

I recorded in Vol. I., p. 194, an instance of decided temporary relief in a case of *hydrophobia*, in 1837, in which unfortunately mesmerism was not begun till the disease was far advanced, and opium largely given. A second case was read last April to the Manchester Medical Society, in which the patient appeared tranquillized by mesmerism. In this case also mesmerism was not employed alone, nor till the third day of the disease. Yet Mr. Gardom, who mesmerised him, informs me that the poor creature was benefitted. He writes to me thus:—

"The best proof of all others that he really did derive some measure of comfort, is in the fact of his having expressed to my pupil, during the last night of his existence, when all other means were found to be unavailing, *his wish that I might be sent for to operate upon him again*. This is not mentioned in the paper, because I was not aware of the circumstance when I drew up the report.

"The medical men were afraid I should produce spasms by making passes—so dreadfully sensitive was he to the least breath of air. We were all struck with the improvement after the first operation, and we were all surprised on the night of Monday to find him *so little changed for the worse since the morning*."

The late Viscountess Canterbury lately sunk under a most devastating *disease of her liver*. Dr. Bernard, of Clifton, wrote to me on the 22nd of September, at the desire of her family, stating that there was "a tumor in the right hypochondrium, stretching down to the right iliac region, tender in some parts, irregular and stony on its surface to the finger, nodules of schirrous hardness,"—"much emaciation and debility." Did ever medical man cure such a case? Did ever medical man arrest the progress of such a case? Did ever medical man even greatly alleviate the sufferings in such a case? After death the appearance of the liver was frightful: and I understand that some popular physicians and surgeons of London were proved to have formed an erroneous

opinion of the seat of disease, as Dr. Bernard was convinced from the first.

"Lady Canterbury yielded to the desire of her family to try mesmerism, when every other remedy had failed to afford relief;" and when I was consulted, I expressly mentioned, and the family expected, that alleviation of suffering was all that could be hoped for. Great alleviation of suffering was procured. "She experienced relief from pain and was invariably soothed by mesmerism," and constantly asked for it; and was mesmerised not only regularly by Dr. Storer, of Bath, but several times in the day and night by those around her. This I learnt from the Countess of Blessington, and the passages in inverted commas are from a letter from this lady to me. Dr. Storer writes to me, "that as a palliative, and without any medicine, mesmerism produced great relief from pain and refreshing sleep. Of the benefits received, her ladyship and family expressed to me, on three different occasions, their full convictions; and, judging from the effects, also regretted that mesmerism had not been adopted at an earlier period." Yet some *medical* men, and others deriving their knowledge from them, "without knowing anything of the facts, have been industrious in raising and spreading a report that mesmerism had entirely failed, if it had not even done worse, in this case"

If every patient, whatever his disease, were mesmerised for the purpose of tranquillity, not only would suffering be diminished, but cures by all appropriate remedies be rendered far more easy.

I cannot conclude without adding, that I hear, on good authority, that some medical men in Dublin are propagating a report that mesmerism has left insanity as its consequence, and that the medical profession of London have found this to be the fact. Why, the medical profession of London never condescend to employ mesmerism. I have had ample experience for nine years, and never met with such an occurrence. *All* my patients are in perfect health, or none the worse for mesmerism; which is more than can be said of all patients treated by bleeding, physic, and surgical operations. At the same time, as terror in health induces various diseases—madness, even death—so it may in the mesmeric state, if patients are treated ill by those who are ignorant of mesmerism. Of the bad effects of the ignorant interfering with mesmeric patients, I will send you two examples for your next number.—Is it true or not that a dozen medical men in one of our three

capitals, ignorant of mesmerism, did play fools' tricks, or did wantonly cross-mesmerise a young woman and drive her mad? I have sent you splendid cures of insanity (Vol. I., p. 16), and will send you another by Mr. H. S. Thompson for your next number.

I remain, &c.,

JOHN ELLIOTSON.

IX. Phreno-mesmerism and Clairvoyance.

TO THE EDITOR OF THE ZOIST.

SIR.—Your journal does not I am aware encourage public lecturing on mesmerism, still your pages are open to a record of facts wherever they may occur. In private practice, however interesting our cases may be, they cannot be witnessed except by a very small number; I am therefore of opinion that when really genuine and beautiful cases are presented to the public, some record of them ought to be preserved. With this view I send you some particulars of two cases which have lately fallen under my notice at Bath and Bristol. They were brought forward by Mr. Lundie, who has devoted much time to the practical demonstration of mesmerism.

Besides the public lectures, I have had with some friends several private opportunities of testing these cases, and those present with myself have been thoroughly satisfied with their integrity, and the satisfactory results as regards mesmerism and clairvoyance.

The first case was that of Thomas Laycock, about 14 years of age, an uneducated Yorkshire youth, but possessing good natural abilities, as might be predicated from his phrenological development. When in the mesmeric sleep, he quickly passes through the intermediate to the higher stages: so sensitive is he of Phreno-mesmerism that all the larger organs may be excited without contact, and the smaller, such as the perceptive, respond in the most distinct and perfect manner, even when operated upon by strangers.

Whilst demonstrating clairvoyance, his eyelids have been covered with large pieces of cotton wool, and then securely bound by three and four handkerchiefs, two placed obliquely over each eye, and the others transversely round the head; besides these precautions, pieces of lint and cotton, were during the experiments inserted in any places where there was an assumed probability of the patient seeing.

He has then read perfectly and distinctly from different books, papers, circulars, and cards, sent up or brought indiscriminately from the audience, and if a paper or book contained German or Greek characters, he would immediately exclaim, "Oh what curious letters, if they are so at all." This youth is extremely susceptible of music during the mesmeric state, and under its influence and with the excitation of the corresponding organs, he will give illustrations of the comic, serio-comic, and extatic which our best living actors would be proud to equal, so naturally and beautifully were manifested the different powers of the brain. No particular order was followed in exciting the organs. Any one had the liberty of writing the name of them on paper, and through the chairman, it was handed to the lecturer, and sometimes to a stranger.

I will also mention that this youth seems decidedly to possess the power of predication and its seat. I saw him tested in three different cases, all unknown to him, and though his descriptions were uncouth from want of a knowledge of medicine, they were nevertheless substantially correct.

The second case is that of Richard Ware, aged 17, the son of a respectable tradesman in Bristol. This youth manifests also all the higher conditions, the chief difference appearing in the way that they are elicited. He is so extremely sensitive in the mesmeric state, that no cotton, wool, or bandages can be applied without at once exciting all the phrenological organs, with which they come in contact. The fingers are generally placed over the eyelids, to confine them, at other times, narrow slips of adhesive plaster are applied so as to cover every possible crevice. In this state he will describe any thing passing before him, and though very illiterate, will read any legible writing or printing. He is very fond of cards (the other youth detests the sight of them), and at a game of All-Fours, or Beggar-my-Neighbour, under the excitement of Hope and Acquisitiveness, he will not fail to continue playing until he has gained something: he will try and cheat you, but you cannot deceive him: if you change or take away a card on the sly he immediately detects it, and becomes very excited.

Another interesting point in his case is the extreme rigidity that can be induced by passes, either in the sleeping or waking state. To such an extent may the rigidity in his legs be produced, that seated in a chair, or even on the sharp ridge of the back of one, with proper opposing force applied to the body or shoulders, he will bear the greatest weights, and

remain in this state for one, two, or three hours. There is not the slightest perceptible effort or resistance made in any way during the experiments; on the contrary, the youth when awake will engage in any passing conversation, whistle, sing, or do any thing that his other members will allow; he declares himself unconscious of the weight applied, though he may see before him the object.

In relating what I have often seen in these cases, I wish to confine myself to the prominent points,—the minutiae would fill pages: and as a satisfaction to any of your readers, I will mention, I am not in the least taken by surprise by these results, having paid much attention to the subject, and also witnessed similar illustrations in a great variety of cases. My only surprise is, that men who have not fairly investigated the subject should have the assurance to deny and condemn the labours of those who have; and even among those who have openly opposed mesmerism, how little of fact and argument has been brought against it! Let me here notice in particular one illustration. Mr. Estlin, a surgeon at Bristol, has twice issued a little pamphlet against mesmerism; yet I defy any one, after the most attentive perusal, to say that he has destroyed a single fact or principle. His statements are mere assertions on the authority of others; his opposition is grounded on "ifs, buts, and suppositions;" and in his summary, he is compelled to admit more in its favour than he himself intended, or is aware of: and, although not a case is introduced on his own authority, still Mr. Estlin refuses the opportunities offered to him by others to enable him to judge fairly and dispassionately for himself. When these cases were demonstrated within a few doors of his own house,* he was

*To J. Estlin, Esq., Park Street.

Sir,—As you are, by your own shewing, the champion of Anti-mesmerism, and as your name is very prominent as the leader of the medical opposition to mesmerism in this city, I hope you will feel it your duty to accept the challenge now offered to the profession.

If mesmerism be the nonentity, and the effects of fraud and collusion, which you have twice so represented in your little tracts on this subject, I think from your presumed ability to detect and expose, the profession, if not the public, may fairly call upon you to assist them in these inquiries. Without giving an opinion myself, I am determined, from the fairness of the challenge offered, to go and judge for myself. This will also be done by many others; and I cannot but think, that after what has been published by yourself, and apparently acquiesced in by a portion of the profession, that if you do not accept the challenge now given, the public may, and will, be inclined to doubt both the honesty and sincerity of the opposition hitherto maintained. In case you may not have seen the advertisements or the bills containing the challenge, I beg to enclose you a printed circular.

I am, Sir, yours obediently,

A Bristol Practitioner.

P.S. These lectures were generally well attended, and afforded the

publicly challenged, and privately invited, to come forward and disprove them if he could. What was Mr. Estlin's conduct? (perhaps prudential)—his absence. It is true, some medical men came and were convinced; others were determined to oppose; and amongst the most prominent points of their opposition, were the following:—

The youth, Laycock, read distinctly when the eyelids were perfectly closed, wadded, and covered by four handkerchiefs; and because the fifth and sixth handkerchief was not put on, they affirmed there was no proof of his being able to see through the six if applied.

Another medical man affirmed that one case was an imposition, because the youth swallowed during the sleep!!!

A third, who had made himself very prominent in the matter, was called upon to test the state of rigidity. His reply was, "That it was unnecessary; that there had been imposition practised in some cases; and *that therefore*, the present experiments were of that character."

Suffice it to say, that common sense and justice completely negatived these ultra-ridiculous objections, and that the facts of mesmerism and clairvoyance were not and could not be destroyed by the ignorance and prejudices of a would-be-privileged order.

I am, Sir,

Yours obediently,

HENRY STORER, M.D.

27, Brook Street, Bath.

X. Satanic Agency.

ONE of the most lamentable things for a well-informed person to witness is the gross, the savage, ignorance of an immense mass of the community; much of this mass considering themselves well-informed ladies and gentlemen, much of it going regularly to receive instruction at places of worship from those whom they in their ignorance consider truly educated men, and yet believing that the phenomena of the nervous system produced by moving the hand before the face result from imaginary beings called evil spirits. The day will come, when, if a bishop does not feel justified in forbidding any of the apostolic succession from preaching such disgusting rubbish,

utmost satisfaction, except to a few captious medical men and others, whose objections are noticed in the accompanying paper. The Bristol papers gave interesting and impartial reports.

the voice of the people will shame into silence those who make the attempt. At present the case is so far otherwise, that we read this paragraph in *The Examiner* of the 26th of last July:

"On Sunday last the installation took place in Chester Cathedral of the Rev. Hugh M'Neile into the canonry, the Archdeacon of Chester officiating.—*Liverpool Standard*."

We read also the following :—

"**THE REV. H. M'NEILE v. TOTAL ABSTINENCE.**—A short time since a gentleman, much interested in the cause of total abstinence, waited upon the rev. gentleman at his own house, and presented his card, requesting permission to distribute some temperance tracts amongst the teachers and scholars of St. Jude's school. He was received very coldly, and was told that what he (the rev. gent.) considered proceeded from Satan, he would not let those over whom he had authority be contaminated with.—*Liverpool Mercury*."

His predecessors in ignorance called potatoes the food invented by the devil, because the name is not mentioned in Scripture; and the man who introduced potatoes into France was hung up on a lantern, during the Revolution, for trying to make the people eat roots. When we need the ravings of the charitable M'Neile, Charlotte Elizabeth Tunna, and their like, against us mesmerists, we fancy that we shall soon hear the shouting, the exclamations of the chorus of Christian guards in the *Walpurgisnacht* :—

"Help, my comrades! see a legion
Yonder comes from Satan's region!
See yon group of witches gliding
To and fro, in flames advancing;
Some on wolves and dragons riding,
See, ah! see them hither prancing!
What a clattering troop of evil!
Let us, let us quickly fly them!
Imp and devil
Lead the revel;
See them caper,
Wrapt in clouds of lurid vapour!"

It is with great pleasure that we turn from such persons to a passage in "*A lecture on the Nature of Miracles, delivered to the Members of the Church of England Association, at the Literary and Philosophical Institution, on Thursday Evening, Nov. 20th, 1845.* By the Rev. F. CLOSE, A.M.

"Now he might be asked what he thought of the astonishing phenomena of *mesmerism*. Were they miraculous or were they not? This seemed at first sight a very hard question to answer; but if he approach that mysterious subject well armed with all the truths which he had endeavoured to bring before them, he thought an easy

solution might be given to the question. He met it with a direct negative. However extraordinary the various phenomena might be,—and upon the merits of particular experiments he offered no opinion—he affirmed, and he had not heard of any sane person connected with that mysterious science who contradicted his assertion—that there were no supernatural causes hitherto developed:—that whatever they were, they were physical or metaphysical—they were some of nature's secrets, whose laws and principles were not yet fully revealed or discovered. He had no hesitation in saying thus far—he spoke not of any particular exhibitions,—but he spoke of the mesmeric power in the abstract—and he felt constrained to acknowledge that there were some facts in the science of mesmerism which he was bound to believe, upon the same kind of testimony as that on which he believed the miracles of the scriptures themselves; namely upon the credible testimony of those whose word, and understanding, and principles, he could not suspect. He was one of those, who were utterly fearless as to the result of faithful inquiry into the secrets of nature; he knew indeed that while truth was in the course of discovery, the most crude and foolish theories would be started; and much mischief might be occasioned, yet eventually truth must come out of nature's ample bosom; and ere long it would be proved whether there was not some subtle principle or principles to be discovered; whether there was not some mysterious power or agency whereby mind and matter were connected as by a subtle thread, and whether that delicate and invisible thread, which bound the soul and body of man, might not bind the souls and bodies of many men together in the same mysterious manner. Let them only keep it well in mind that the phenomena of mesmerism were not miraculous, that there was no Divine interference; but that they are purely physical discoveries of hidden and unexplored properties of nature. Let them keep to that, and *then*—why they had better be minding their own business than speculate on things they did not understand! (*Laughter.*) Let us leave them to the learned before we took upon ourselves to act and appear in the experimental drama. And here he would venture to say a few words, if he might be allowed, to his fair friends. He would recommend the ladies to leave mesmerism alone, for it appeared that their nature was peculiarly sensitive to the mysterious power of mesmerism. He would therefore recommend them to wait awhile, until the stronger heads of the nobler part of mankind (he hoped they would forgive him) had searched a little more deeply into the matter; and when the doctors and philosophers had brought before us something like a classification of the phenomena, and had approached a little more towards the structure of a system, then it might become more popular. But at present he was sure that he knew enough of this subject most seriously to assure them that mesmerism was not a thing to be trifled with, either physically, mentally, or spiritually! a wild and injudicious pursuit of this subject might terminate, as it had already done in one instance, in insanity! He said not this in condemnation of mesmerism, he knew it was, only an abuse of it. But he did warn them against trifling with it, playing

with a power, like a child playing with some unknown and dangerous weapon, he knew not what the effects might be. He took that opportunity to deliver his opinion on that debateable topic, only adding one word more; as he felt persuaded that there was nothing miraculous in mesmerism, so he was certain that there was no interference of the evil spirit in mesmerism. Satan had nothing more to do with mesmerism than he had to do with us in everything else. Never would he grant this vantage ground to the prince of darkness, or suppose that he exercised mesmeric power. True, we could not explain the phenomena—nor see the beneficial object of them—but therefore to conclude that they are diabolical, appeared to him to be the most inconclusive argument that he had ever met with.

“Finally—his subject that evening had particularly appealed to their understanding, to their reasoning powers, and to their general information; but let him as their minister, be permitted to remind them that the strongest convictions of the understanding might exist without a spark of spiritual feeling; let him assure them that mental, moral and spiritual miracles were of a higher nature than those of which he had been called to speak! He desired, day by day, to see the blessed exhibition of that great moral miracle, a *converted heart*—and he desired for his hearers and himself that their whole life, and the whole phenomena of their moral nature, might display one consistent and continued development of divine grace.”

The last passage does not bear upon mesmerism: but we insert it for those who fancy that the possession and holding of opinions is worth as much as charity, humility, and integrity.

S. I. L. E.

XI. Health of the Hon. Mrs. Hare and Miss Martineau.

TO THE EDITOR OF THE ZOIST.

SIR,—The course of falsehood pursued in regard to every remarkably successful case of the employment of mesmerism is still actively followed with reference to Mrs. Hare and Miss Martineau. As in every other case, where such falsehood could be traced, the fabrication has been traced home to a medical man; in Miss M.'s case to a medical man at Bristol.

I enclose you, with permission, a letter to myself from Capt. James, and one to Capt. James from Miss Martineau.

“Cheltenham, Dec. 23rd.

“My dear Doctor,—I have received the following admi-

rable and satisfactory letter from Miss Martineau in answer to certain absurd reports respecting that lady's health and altered views of mesmerism. As long as these reports were confined to a few idle and gossiping people, it appeared to me unnecessary that they should be seriously noticed; but as I am now informed that these falsehoods have appeared in *print*, perhaps you may agree with me that their refutation should appear in the pages of the next number of *The Zoist*.

"My dear Doctor,

"Yours faithfully,

"J. JAMES."

(Copy)

"Ambleside, Dec. 11th, 1845.

"Sir,—I am greatly obliged by your letting me know, through Mrs. —, the notions that are abroad on the subject of my health and my present views of mesmerism. Nothing can be more absurdly false than they are. I am in robust health, and have not had one day's illness since I avowed my cure by mesmerism. My long daily walks and the literary labour I undergo without fatigue, have satisfied all who know me that I am perfectly well. I myself am fully aware that I am well for the first time in my life, and that I owe my health wholly and solely to mesmerism. My gratitude to those who guided me to this remedy and who administered it is, I need not say, as strong as is in the early days of my recovered case.

"I practice mesmerism myself with sufficient success to have established my faith if it had at any moment wavered, but this has never been the case. One of my late patients has been my respected servant Jane (from Tynemouth), who has again been restored from a fearful attack of illness by mesmerism alone. That my convictions remain what they were a year ago, is known to all my personal acquaintances, because they are aware that if I had changed my opinions, I should have made a recantation as free and full as my avowal. I trust too that they know, that a fact in natural philosophy, once ascertained by experiment, can never again be disbelieved. But as there are many persons who know neither of these things, and who yet may have power to discourage enquiries into mesmerism,—an enquiry which I think it my duty to promote by any means in my power,—I have no objection to authorize your making any use you may think proper of this letter.

"I am, Sir,

"Sincerely yours,

"Capt. James.

"HARRIET MARTINEAU."

Similar reports have been spread respecting the Hon. Mrs. Hare, cured by Mr. Kiste (p. 96) : and they have been traced to a provincial medical man. There was no foundation for them. Mrs. Hare never had a relapse, and is still in perfect health. I received a letter from her some time since, saying, "Here I am with no symptom of my complaint: left off opium all but—no exhaustion or proneness to disease; can walk six miles, and carry twenty gallon water pots to my flowers every evening; am without an atom of complaint."

I am, &c.

JOHN ELLIOTSON.

XII. *Dr. Forbes the REAL impostor.*

"Crusades against Mesmerism we have no objection to; as some people may still require such assistance (especially so long as public instruction in medical matters, to the extent we have recommended to Sir James Graham, is wanting); nay, more—if Dr. Forbes have leisure, we have not the least objection to an attack on Morison's pills."—*A Reply to Certain Observations of John Forbes, M.D., Proprietor and Editor of the British and Foreign Medical Review, &c., &c.* By GEORGE MACILWAIN. Dec., 1845.*

THE obstinacy of medical men is almost past belief. Two months since the following case came under our notice. A young and delicate female was seized with several anomalous symptoms of disease, and her two medical attendants, one her brother-in-law, confessed that they did not understand her state. They sought the advice of their medical friends, and another medical relative suggested a trial of mesmerism. The advice was scouted. Dr. Elliotson was requested to see her. He informed her medical attendants that he was not acquainted with any treatment calculated to alleviate her sufferings, and likewise suggested the trial of mesmerism. The advice was again scouted. Another opinion was sought, and another confession of ignorance as regards the nature of the disease was the result. In the mean time the patient became worse and worse, and the medical attendants, although they saw her sinking and knew that their medicines were useless, nevertheless refused to give her the chance of benefit from the treatment proposed. At the end of a few weeks she died. No effort was made to ascertain by an inspection of the body the nature of the disease, and for a very good reason. Having refused to adopt a certain plan of treatment suggested by high authority, of course the best plan was to leave the case in a state of doubt, and we think the attendants were sufficiently acute to suspect that the symptoms originated from some functional derangement of the nervous centres, but not involving such changes of structure as to

* We make this quotation for the same reason which influenced Dr. Elliotson to quote that other wise man, Mr. Evans Riadore, at p. 339.

become cognizable to our ordinary means of investigation. They therefore neglected the only course left to them for the purpose of clearing up the mystery, and then in the most audacious manner stated that the patient died of a disease that was never mentioned during her life. A post-mortem diagnosis, if we may be allowed the expression, is not worth much, and in this instance was most undoubtedly false. We shall not trust ourselves to reflect on such heartless conduct—we refer to it for the purpose of recording one of the most disgusting specimens of medical ignorance and bigotry that has ever fallen under our notice, albeit, we are daily in the habit of meeting with lamentable specimens. We have referred to it also, because individuals of this character, who pin their faith to their leader, and follow like slaves the course their master may direct, consider that their responsibility ceases if they have the power to refer to the adverse opinions of such men as Dr. Forbes. The mischief that this obstruction has produced is incalculable.

Last month we were startled by reading the following advertisement in a daily paper. "Illustrations of Modern Mesmerism from personal investigation. By John Forbes, M.D." We exclaimed, "Then is our old enemy really converted? Is our opponent after a seven years' struggle really engaged in a *personal* encounter with truth? Has he taken our advice and adopted the manly and philosophical course of experimenting for himself?" We forthwith obtained a copy of the work, and to our utter astonishment we discovered that it was the old trash newly dressed and furnished with the above seductive title, and consequently that we have still to announce that the Physician to the Household of Queen Victoria considers it consistent with the character of a public journalist to denounce as nonsense what he does not understand—as becoming the dignity of a man and a philosopher to treat with contempt the opinions and labours of his compeers, and for the sake of a little fleeting popularity to become the leader of the ignorant and unthinking. Dr. Forbes now fills the situation vacated by the Coroner for Middlesex. Seven years ago the latter individual informed the profession that he had exposed "the humbug;" but Dr. Forbes does not think the work was well done, and in doing it over again, adopts the very same course,—a truly absurd and dishonest one,—viz., selecting for investigation the cases of others, instead of experimenting for himself on members of his own household, or on individuals who rank so high in his estimation as to place the question of imposture beyond a doubt. *We have no hesitation in stating that the individual who de-*

nounces mesmerisers and their patients as impostors, and yet neglects this very obvious method of inquiry, is dishonest; and if this individual publishes his editions of a work casting aspersions on his neighbours after he has been requested to adopt such a simple and easy experiment, we deliberately state that he forfeits all claim to confidence and respect. Dr. Forbes do you answer to this definition?

We feel anxious to keep our readers in possession of Dr. Forbes's movements. He has been skirmishing with truth for some time past, and, like the great political trickster of the day, he would fain embrace her, if he was quite sure there would be no risk incurred. We speak advisedly when we say, that if Dr. Forbes, in his position of editor of the *British and Foreign Medical Review*, were to announce his belief in the truth of mesmerism, he would revolutionize the bulk of the profession: medical men merely require some one who has been a violent opponent to announce his belief, and forthwith they will all appear in the mesmeric ranks,—they require some one who has behaved as badly as themselves to keep them company during their transition, and they will then imagine that they can escape the penalty so justly their due. For seven years their conduct has been disgraceful. They have listened to the dictation of Mr. Wakley, who, as a mere journalist, dared to give an opinion on a subject which neither his education nor his natural powers warranted him in doing. Yes, twenty thousand educated men (for there were but few exceptions) prostrated their intellectual character at the shrine of this man,—he was their master,—he told them that a great natural truth was not a truth, and they forthwith bowed their heads, leaving the leadership of one they had hitherto followed, and enlisting themselves under the banner of a literary trickster. If these circumstances had not occurred in our own time, we could not have supposed that educated men could so far have forgotten themselves. But we are determined that the public shall be made acquainted with the difficulties the mesmeric pioneers have had to contend against. We will not permit the men who stood back, and, with the scowl of contempt or the look of pity, dared to denounce their brethren, to turn round without a protest on our part, and an endeavour to point out how unphilosophical and contemptible their previous conduct has been. If they have pursued a course unenlightened by intellect, and uncontrolled by a love of truth and justice, they must be exposed and held up as a terror to future evil-doers.

But let us keep our great culprit in view. When will Dr. Forbes announce his belief? When he adopts the means

calculated to convince him. There was a singular feature in the conduct of the ancient physicians when Harvey announced his discovery of the circulation of the blood. It is stated that no man above the age of forty embraced the new doctrine. Must we place Dr. Forbes in the same catalogue with the antiques? Our readers shall answer. Dr. Forbes's son is a mesmeriser. He has spoken publicly on the subject and avowed his belief; nay, more, we are assured that he has practised it! The son is 25 years of age, the father is upwards of 50! Must we then consider the father so prejudiced as not to investigate for himself—so arrogant as to suppose that he is aware of all the functions of the human organism—possessing so little enthusiasm as not to have an ardent desire to search out to the very utmost the phenomena presented to him, and more especially when those phenomena can be presented to him by his own son, produced by his own son, and their genuine character attested by his own son?

If Dr Forbes is really anxious to instruct his professional brethren, why does he not request his son to commence a course of experiments under his immediate superintendence? Surely this would be more philosophical than running about, with a writing desk under his arm*, from Manchester Square to the Temple, from an inspection of Adolphe to a sight of George Goble. Why does he at the eleventh hour, when thousands are convinced of the truth of mesmerism, run all over London like a wandering Jew, with a pack at his back, testing in his peculiar way all kinds of cases, pronouncing all to be impostors, and in the reports of each case, proclaiming to the profession by his style of writing and his observations, that they may in their discussions on mesmerism, quote it and adopt it as their motto "*ex uno disce omnes*?" Does he suppose that Liebig or Faraday, if they were told that by mixing certain substances a new and valuable compound would be formed, would neglect to experiment for themselves, and run all over Germany or England to see the individual who professes to do it? Does he suppose that Arago or Herschel, if they were told that by directing their telescope to a certain quarter of the heavens a new comet would become visible, would run about looking through other people's telescopes and neglect the use of their own? Yet, this is just the course he is pursuing as to mesmerism.

* We once met Dr. Forbes in Manchester Square prepared to test Adolphe's powers of clairvoyance. We were much amused at the contents of a small writing-desk he carried with him. There were envelopes of all kinds, of all sizes, and of all textures—Leech-boxes tied with string and sealed with wax—pieces of paste-board—pieces of cartridge paper &c., &c.

But supposing we admit that he is justified in adopting his present plan of investigation, we say, that he has never sought an interview with members of his own profession,—men of recognized character. Nay, worse than this, he has been invited and refused the interview. It is now just four years ago that he was asked to inspect several cases of mesmerism by a member of his own profession, and one with whom he was in the habit of associating. He treated the invitation with scorn; he thought his friend was “daft.” Dr. Elliotson lives in the next street to him, has he ever requested an interview? So far from doing this, has he not twice lent the pages of his journal to prejudiced scribblers, and permitted two gross and unwarrantable attacks on him to appear? Did not the last contain an infamous falsehood?—but perhaps this ought not to be referred to again, for in the succeeding number he retracted the statement and apologized. Was it manly, honest, or philosophical, to place his dictum on a scientific subject without previous investigation,—to support the monstrous proceedings at University College,—to designate the labours of a compeer, “melancholy explosions,” “degrading and diverting scenes,”—on all occasions and in every social meeting to systematically denounce men who were working while he was sneering, and to do all this because the subject was not fashionable, because the anti-mesmeric cry was in the ascendant, and because it was a *hazardous speculation* for a journalist to attempt to interfere with it? Behold his career—past, present, and future. Six years ago he said it was all “humbug”—last April he said it was *half true, half false*—since April he has been engaged in a kind of yea-nay investigation, which will terminate in a slow canny admission of isolated facts and phenomena, and then will come the crowning article in the *British and Foreign Medical Review*, revealing the whole truth, and recommending its practical application. Yes, and he will gain his reward; for all those who have behaved as ill as himself will cry, “O! Forbes is a safe man—he opposed mesmerism for years—he spent years in investigation, but now he is convinced, and like an honest man avows his conviction.” Let it be so. We are only anxious for the spread of truth—we care not what machinery is put in motion,—we were nearly saying, we care not what men are enlisted under our banners, albeit, we would certainly prefer those who could come with clean hands, who could refer to a life of consistency, and declare when they claimed admission into our ranks that they did not wait for the popular breath to bring them, but that they always assisted the progress of truth and the advancement of science. Unfortunately,

Dr. Forbes cannot say this. His anti-mesmeric crusade has been unphilosophical in the extreme, and we are determined that so long as we possess a pen and a brain to prompt the finger's movements, his career shall be chronicled and his unfair conduct exposed.

The aspersions that Dr. Forbes formerly cast upon the character of Alexis we noticed at the time, and we brought forward facts to prove that his conclusions were completely and entirely wrong. We have glanced at the reprint of his former paper, and find that he has not condescended to notice this, but simply contented himself by repeating his former assertion that Alexis is an impostor. We might easily call names. What are we to call an individual who writes on a subject he does not understand, that he has never investigated? What designation are we to give the man who refuses to visit the cases of those on whom he could place confidence, and yet wilfully contends that he has never seen a case where he has not detected imposition? This is a grave subject. Dr. Forbes should remember that he placed himself in the position of a public journalist, and, as such, that he has given an adverse opinion. Two classes of observers watch his progress. Thinking men ask what opportunities he has enjoyed for the formation of a sound opinion, and on examination they find none; but the mass see his name on the cover of a journal, and in their ignorance presume that he would never commit himself so much as to assert, without an abundant supply of evidence, that all mesmeric patients are impostors, and, by a logical sequence therefore, that those who are investigating their cases are fools.

A foolish medical man, some years ago, denied that there was such a disease as rheumatism. A friend demanded his reasons. He replied, "I have visited the hospital, and examined three patients who said that they could not walk because their joints were stiff and their limbs in pain, but by means of the searching investigation I adopted, I satisfied myself that they were impostors." But said the friend, "I am treating cases about which there can be no doubt; pray come and see them." "No," said the foolish medical man, "all the patients are humbugs and impostors: I will not look at your cases; and, I repeat, that I have never seen a case where there was not deception."

How very similar is Dr. Forbes's argument, he does not believe in mesmerism because he says that he has detected one or two impostors. He will not visit cases calculated to remove his doubts, but points to Alexis and George Goble. His son tells him that he is in error and declares that he has

produced the mesmeric sleep—still he points to Alexis and George Goble; but fearing the consequences of prolonged opposition, he with the most jesuitical plausibility endeavours “to bamboozle” his readers, and to leave a hole through which he may hereafter creep, if necessary, by saying, “I have not denied their possibility, or, even their existence as matters of fact. I still profess myself ready to believe them on obtaining sufficient proof of their reality.” And yet this proof he doggedly refuses to look for. The man who refuses to work for his bread when he is able, has no right, when the hunger fit comes, to prefer a claim on his neighbours. A man has no right to raise himself into notoriety by mounting on other men’s shoulders; and if Dr. Forbes refuses to perform a simple experiment for himself, he has no legitimate claim on the cases of our friends. Mesmerisers are not at all anxious to convert Dr. Forbes,—as an individual, it is a matter of perfect indifference whether he remains enshrined in ignorance or not. We have always referred to him in his public capacity, and his career is of importance to the cause of truth, as long as he chooses to use the printing press for the purpose of disseminating his ill-matured and mischievous opinions.

D. E. L. E.

XIII. *A Scotch Professorship of Phrenology, and introduction of Mesmerism at the Royal Society.*

We extract the following from the *Scotsman* of Dec. 10 :—

“ANDERSON’S UNIVERSITY.

“IN common with many who have long felt an interest in phrenology, we have for some years past, and more especially of late, been struck with the many sure though unobtrusive indications of its steady progress in public estimation, and with the extent to which its principles are incidentally, and sometimes even unconsciously, appropriated, without any allusion to their origin, in many works of professional merit and reputation. Those, however, who have never looked below the surface, and who know too little of phrenology to be able to recognise even its plainest doctrines when divested of their somewhat uncouth nomenclature, can have but so imperfect an idea of the true state of the case, that they will perhaps be more surprised than ourselves to learn that a lectureship on phrenology, as a regular branch of science, has

just been established in one of the most prosperous educational establishments in the country, viz., the Andersonian University of Glasgow—and that, too, by the unanimous vote of its managers. We have much pleasure in adding, that on the 24th of last month, Dr. William Weir, a gentleman well known as a successful lecturer in the medical school of that city, and now one of the physicians to the Glasgow Royal Infirmary, was appointed to the lectureship, for the adequate support of which an annual endowment has been granted by the trustees of the late William Ramsay Henderson, Esq.”

It is however right to mention, That the Andersonian is merely a private school, although now recognized by the University of London. Dr. Weir enjoys no more than a moderate reputation in Glasgow. He might perhaps be described as a fourth or fifth-rate general practitioner. It is true he is, or has been, one of the physicians to the Royal Infirmary, but that is an office in which active canvassing usually carries the day, and many men of good standing refuse to become competitors. It is not an office held for life, but for a limited period of some two or three years. We fear that there will be a very scanty attendance of students at his prelections. It might have been otherwise, had a man of higher reputation received the appointment.

The intellect and moral qualities of Dr. Weir will be best estimated by referring to our second volume, pp. 286-7.

A new rule has been made at the Royal Society, by which discussion is permitted. This first came into operation at the last meeting, and the first subject introduced was MESMERISM by the Dean of Westminster. He stated that a daughter of Reichenbach, the discoverer of creosote and some other substances in tar, has a daughter who in her mesmeric state exclaimed that she saw light proceeding from the poles of a magnet of her father's which was in the room. In consequence of this, the poles were presented to a piece of paper prepared for the daguerrotype, and the effect of light was induced upon it. A communication containing these things was sent to Poggendorf's *Annalen*, but refused admission. It was then sent to Liebig, who has published it in his journal.

NOTICES OF BOOKS.

An Act (8 and 9 Vict. c. 100) for the Regulation of the Cure and Treatment of Lunatics, with explanatory notes and comments, &c. &c. Edited by Forbes Winslow, M.D., author of "The Plea of Insanity in Criminal Cases," "The Anatomy of Suicide," &c.

Edinburgh Phrenological Journal, Oct. 1845.

Journal du Magnétisme. T. 1. No. 2. Paris.

Le Magnétisme traduit en cour d'assises. Acquittement. Paris.

The Curative Power of Vital Magnetism, verified by actual application to numerous cases of disease.

A Lecture on the Nature of Miracles, delivered to the Members of the Cheltenham Church of England Reading Association, at the Literary and Philosophical Institution, on Thursday evening, Nov. 20, 1845. By the Rev. F. Close, A.M.

Rationalism. A Treatise for the Times. By G. Jacob Holyoake.

The Journal of Health and Disease. No. 1 to 6.

The Rejected Cases; with a Letter to Thomas Wakley, Esq., M.P., on the Scientific Character of Homœopathy. By John Epps, M.D.

We do not feel justified in writing a syllable for or against homœopathy, any more than for or against miracles, or any other subject not in the province of our journal. But we must express our amusement at a letter in this work from a Dr. H. Bennett, who, it seems is Mr. Wakley's obedient sub-editor, in which the author is informed that his cases are imperatively returned on account of the determined opposition of the subscribers and readers of the *Lancet* to anything in the shape of homœopathy; so that when one (the fourth) "was inserted last winter, Mr. Wakley received an avalanche of letters from all parts of the country, couched in such terms as to make it next to impossible to insert any further communications of the kind." Our readers will remember that Mr. Wakley turned round upon mesmerism as soon as he was inundated with letters from medical men, nineteen out of twenty being against it. Mr. Wakley thus confesses himself an abject slave, publishing on the side that brings him most money.

NOTICES TO CORRESPONDENTS.

Edith Jones, of Dublin, suggests that the diseases cured with mesmerism should be "nominated" in our Index. Every disease so treated is "nominated" in our Index. Dolland of St. Paul's Church-yard sells excellent spectacles.

A Searcher after Truth, enquires,—“How is it that the Phrenological developments can be produced only in the mesmeric state? Why not in the natural state of sleep? And why not in the natural broad-awake state?”—The answer is at p. 482.

A Fellow of the College of Physicians.—We have found that Sir B. Brodie's prescription for Miss Collins's neck, was a little assafetida. The Manchester plan with her was not only to strain the eyes to the utmost, but to keep them at a double internal squint.

END OF THE THIRD VOLUME.